

IES INDOOR REPORT

PHOTOMETRIC FILENAME : 8CRDI-TL-20-L20-835U-L40-835D-RDB-XXX-DIM1-UNV-OW-LM-CS-CMXX.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN FROM BALLABS TEST NO. 20685.0

[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC

[ISSUEDATE] 06/19/2025

[MANUFAC] WILLIAMS INDOOR

[OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO

[LUMINAIRE] 8" ROUND, DIRECT INDIRECT LED CYLINDER

[MORE] COMPACT HOUSING WITH REMOTE DRIVER ENCLOSURE

[LUMCAT] 8CRDI-TL-20-L20-835U-L40-835D-RDB-xxx-DIM1-UNV-OW-LM-CS-CMXX

[LAMPCAT] BL VERO COB LED

[_SEARCH_SOURCETYPE] LED

[_SEARCH_APPLICATION] Indoor, Classroom, Commercial, Corridor, Hotel, Industrial, Office, Downlight

[_SEARCH_MOUNTING] Recessed

[_CONVERT] Photometric web converted from original test data

[_CONVERT] Luminaire test position and photometric web converted from original test data

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	5420
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	96
Total Luminaire Watts	56.2
Ballast Factor	1.00
CIE Type	Semi-Direct
Spacing Criterion (0-180)	0.60
Spacing Criterion (90-270)	0.60
Spacing Criterion (Diagonal)	0.58
Basic Luminous Shape	Circular
Luminous Length (0-180)	0.37 ft (Diameter)
Luminous Width (90-270)	0.37 ft (Diameter)
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	25723	25723	25723
55	18835	18835	18835
65	15347	15347	15347
75	12491	12491	12491
85	8217	8217	8217

IES INDOOR REPORT

PHOTOMETRIC FILENAME : 8CRDI-TL-20-L20-835U-L40-835D-RDB-XXX-DIM1-UNV-OW-LM-CS-CMXX.IES

CANDELA TABULATION

	<u>0</u>	<u>5</u>	<u>10</u>	<u>15</u>	<u>20</u>	<u>25</u>	<u>30</u>	<u>35</u>	<u>40</u>	<u>45</u>
0	8636.051	8636.051	8636.051	8636.051	8636.051	8636.051	8636.051	8636.051	8636.051	8636.051
5	8297.616	8297.616	8297.616	8297.616	8297.616	8297.616	8297.616	8297.616	8297.616	8297.616
10	7288.285	7288.285	7288.285	7288.285	7288.285	7288.285	7288.285	7288.285	7288.285	7288.285
15	5430.877	5430.877	5430.877	5430.877	5430.877	5430.877	5430.877	5430.877	5430.877	5430.877
20	3260.915	3260.915	3260.915	3260.915	3260.915	3260.915	3260.915	3260.915	3260.915	3260.915
25	1686.200	1686.200	1686.200	1686.200	1686.200	1686.200	1686.200	1686.200	1686.200	1686.200
30	845.091	845.091	845.091	845.091	845.091	845.091	845.091	845.091	845.091	845.091
35	440.961	440.961	440.961	440.961	440.961	440.961	440.961	440.961	440.961	440.961
40	257.210	257.210	257.210	257.210	257.210	257.210	257.210	257.210	257.210	257.210
45	176.981	176.981	176.981	176.981	176.981	176.981	176.981	176.981	176.981	176.981
50	134.179	134.179	134.179	134.179	134.179	134.179	134.179	134.179	134.179	134.179
55	105.114	105.114	105.114	105.114	105.114	105.114	105.114	105.114	105.114	105.114
60	82.419	82.419	82.419	82.419	82.419	82.419	82.419	82.419	82.419	82.419
65	63.108	63.108	63.108	63.108	63.108	63.108	63.108	63.108	63.108	63.108
70	46.186	46.186	46.186	46.186	46.186	46.186	46.186	46.186	46.186	46.186
75	31.455	31.455	31.455	31.455	31.455	31.455	31.455	31.455	31.455	31.455
80	18.315	18.315	18.315	18.315	18.315	18.315	18.315	18.315	18.315	18.315
85	6.968	6.968	6.968	6.968	6.968	6.968	6.968	6.968	6.968	6.968
90	0.598	0.598	0.598	0.598	0.598	0.598	0.598	0.598	0.598	0.598
95	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
100	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
105	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
110	0.806	0.806	0.806	0.806	0.806	0.806	0.806	0.806	0.806	0.806
115	0.806	0.806	0.806	0.806	0.806	0.806	0.806	0.806	0.806	0.806
120	4.030	4.030	4.030	4.030	4.030	4.030	4.030	4.030	4.030	4.030
125	8.867	8.867	8.867	8.867	8.867	8.867	8.867	8.867	8.867	8.867
130	18.540	18.540	18.540	18.540	18.540	18.540	18.540	18.540	18.540	18.540
135	35.467	35.467	35.467	35.467	35.467	35.467	35.467	35.467	35.467	35.467
140	64.486	64.486	64.486	64.486	64.486	64.486	64.486	64.486	64.486	64.486
145	247.463	247.463	247.463	247.463	247.463	247.463	247.463	247.463	247.463	247.463
150	1409.009	1409.009	1409.009	1409.009	1409.009	1409.009	1409.009	1409.009	1409.009	1409.009
155	1798.341	1798.341	1798.341	1798.341	1798.341	1798.341	1798.341	1798.341	1798.341	1798.341
160	1650.024	1650.024	1650.024	1650.024	1650.024	1650.024	1650.024	1650.024	1650.024	1650.024
165	1579.896	1579.896	1579.896	1579.896	1579.896	1579.896	1579.896	1579.896	1579.896	1579.896
170	1547.653	1547.653	1547.653	1547.653	1547.653	1547.653	1547.653	1547.653	1547.653	1547.653
175	1502.513	1502.513	1502.513	1502.513	1502.513	1502.513	1502.513	1502.513	1502.513	1502.513
180	1458.000	1458.000	1458.000	1458.000	1458.000	1458.000	1458.000	1458.000	1458.000	1458.000

Vert. Horizontal Angles

	<u>50</u>	<u>55</u>	<u>60</u>	<u>65</u>	<u>70</u>	<u>75</u>	<u>80</u>	<u>85</u>	<u>90</u>	<u>95</u>
0	8636.051	8636.051	8636.051	8636.051	8636.051	8636.051	8636.051	8636.051	8636.051	8636.051
5	8297.616	8297.616	8297.616	8297.616	8297.616	8297.616	8297.616	8297.616	8297.616	8297.616
10	7288.285	7288.285	7288.285	7288.285	7288.285	7288.285	7288.285	7288.285	7288.285	7288.285
15	5430.877	5430.877	5430.877	5430.877	5430.877	5430.877	5430.877	5430.877	5430.877	5430.877
20	3260.915	3260.915	3260.915	3260.915	3260.915	3260.915	3260.915	3260.915	3260.915	3260.915
25	1686.200	1686.200	1686.200	1686.200	1686.200	1686.200	1686.200	1686.200	1686.200	1686.200
30	845.091	845.091	845.091	845.091	845.091	845.091	845.091	845.091	845.091	845.091
35	440.961	440.961	440.961	440.961	440.961	440.961	440.961	440.961	440.961	440.961
40	257.210	257.210	257.210	257.210	257.210	257.210	257.210	257.210	257.210	257.210
45	176.981	176.981	176.981	176.981	176.981	176.981	176.981	176.981	176.981	176.981
50	134.179	134.179	134.179	134.179	134.179	134.179	134.179	134.179	134.179	134.179
55	105.114	105.114	105.114	105.114	105.114	105.114	105.114	105.114	105.114	105.114
60	82.419	82.419	82.419	82.419	82.419	82.419	82.419	82.419	82.419	82.419

IES INDOOR REPORT

PHOTOMETRIC FILENAME : 8CRDI-TL-20-L20-835U-L40-835D-RDB-XXX-DIM1-UNV-OW-LM-CS-CMXX.IES

CANDELA TABULATION - (Cont.)

65	63.108	63.108	63.108	63.108	63.108	63.108	63.108	63.108	63.108	63.108
70	46.186	46.186	46.186	46.186	46.186	46.186	46.186	46.186	46.186	46.186
75	31.455	31.455	31.455	31.455	31.455	31.455	31.455	31.455	31.455	31.455
80	18.315	18.315	18.315	18.315	18.315	18.315	18.315	18.315	18.315	18.315
85	6.968	6.968	6.968	6.968	6.968	6.968	6.968	6.968	6.968	6.968
90	0.598	0.598	0.598	0.598	0.598	0.598	0.598	0.598	0.598	0.598
95	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
100	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
105	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
110	0.806	0.806	0.806	0.806	0.806	0.806	0.806	0.806	0.806	0.806
115	0.806	0.806	0.806	0.806	0.806	0.806	0.806	0.806	0.806	0.806
120	4.030	4.030	4.030	4.030	4.030	4.030	4.030	4.030	4.030	4.030
125	8.867	8.867	8.867	8.867	8.867	8.867	8.867	8.867	8.867	8.867
130	18.540	18.540	18.540	18.540	18.540	18.540	18.540	18.540	18.540	18.540
135	35.467	35.467	35.467	35.467	35.467	35.467	35.467	35.467	35.467	35.467
140	64.486	64.486	64.486	64.486	64.486	64.486	64.486	64.486	64.486	64.486
145	247.463	247.463	247.463	247.463	247.463	247.463	247.463	247.463	247.463	247.463
150	1409.009	1409.009	1409.009	1409.009	1409.009	1409.009	1409.009	1409.009	1409.009	1409.009
155	1798.341	1798.341	1798.341	1798.341	1798.341	1798.341	1798.341	1798.341	1798.341	1798.341
160	1650.024	1650.024	1650.024	1650.024	1650.024	1650.024	1650.024	1650.024	1650.024	1650.024
165	1579.896	1579.896	1579.896	1579.896	1579.896	1579.896	1579.896	1579.896	1579.896	1579.896
170	1547.653	1547.653	1547.653	1547.653	1547.653	1547.653	1547.653	1547.653	1547.653	1547.653
175	1502.513	1502.513	1502.513	1502.513	1502.513	1502.513	1502.513	1502.513	1502.513	1502.513
180	1458.000	1458.000	1458.000	1458.000	1458.000	1458.000	1458.000	1458.000	1458.000	1458.000

Vert. Horizontal Angles

	100	105	110	115	120	125	130	135	140	145
0	8636.051	8636.051	8636.051	8636.051	8636.051	8636.051	8636.051	8636.051	8636.051	8636.051
5	8297.616	8297.616	8297.616	8297.616	8297.616	8297.616	8297.616	8297.616	8297.616	8297.616
10	7288.285	7288.285	7288.285	7288.285	7288.285	7288.285	7288.285	7288.285	7288.285	7288.285
15	5430.877	5430.877	5430.877	5430.877	5430.877	5430.877	5430.877	5430.877	5430.877	5430.877
20	3260.915	3260.915	3260.915	3260.915	3260.915	3260.915	3260.915	3260.915	3260.915	3260.915
25	1686.200	1686.200	1686.200	1686.200	1686.200	1686.200	1686.200	1686.200	1686.200	1686.200
30	845.091	845.091	845.091	845.091	845.091	845.091	845.091	845.091	845.091	845.091
35	440.961	440.961	440.961	440.961	440.961	440.961	440.961	440.961	440.961	440.961
40	257.210	257.210	257.210	257.210	257.210	257.210	257.210	257.210	257.210	257.210
45	176.981	176.981	176.981	176.981	176.981	176.981	176.981	176.981	176.981	176.981
50	134.179	134.179	134.179	134.179	134.179	134.179	134.179	134.179	134.179	134.179
55	105.114	105.114	105.114	105.114	105.114	105.114	105.114	105.114	105.114	105.114
60	82.419	82.419	82.419	82.419	82.419	82.419	82.419	82.419	82.419	82.419
65	63.108	63.108	63.108	63.108	63.108	63.108	63.108	63.108	63.108	63.108
70	46.186	46.186	46.186	46.186	46.186	46.186	46.186	46.186	46.186	46.186
75	31.455	31.455	31.455	31.455	31.455	31.455	31.455	31.455	31.455	31.455
80	18.315	18.315	18.315	18.315	18.315	18.315	18.315	18.315	18.315	18.315
85	6.968	6.968	6.968	6.968	6.968	6.968	6.968	6.968	6.968	6.968
90	0.598	0.598	0.598	0.598	0.598	0.598	0.598	0.598	0.598	0.598
95	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
100	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
105	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
110	0.806	0.806	0.806	0.806	0.806	0.806	0.806	0.806	0.806	0.806
115	0.806	0.806	0.806	0.806	0.806	0.806	0.806	0.806	0.806	0.806
120	4.030	4.030	4.030	4.030	4.030	4.030	4.030	4.030	4.030	4.030
125	8.867	8.867	8.867	8.867	8.867	8.867	8.867	8.867	8.867	8.867
130	18.540	18.540	18.540	18.540	18.540	18.540	18.540	18.540	18.540	18.540
135	35.467	35.467	35.467	35.467	35.467	35.467	35.467	35.467	35.467	35.467

IES INDOOR REPORT

PHOTOMETRIC FILENAME : 8CRDI-TL-20-L20-835U-L40-835D-RDB-XXX-DIM1-UNV-OW-LM-CS-CMXX.IES

CANDELA TABULATION - (Cont.)

140	64.486	64.486	64.486	64.486	64.486	64.486	64.486	64.486	64.486	64.486
145	247.463	247.463	247.463	247.463	247.463	247.463	247.463	247.463	247.463	247.463
150	1409.009	1409.009	1409.009	1409.009	1409.009	1409.009	1409.009	1409.009	1409.009	1409.009
155	1798.341	1798.341	1798.341	1798.341	1798.341	1798.341	1798.341	1798.341	1798.341	1798.341
160	1650.024	1650.024	1650.024	1650.024	1650.024	1650.024	1650.024	1650.024	1650.024	1650.024
165	1579.896	1579.896	1579.896	1579.896	1579.896	1579.896	1579.896	1579.896	1579.896	1579.896
170	1547.653	1547.653	1547.653	1547.653	1547.653	1547.653	1547.653	1547.653	1547.653	1547.653
175	1502.513	1502.513	1502.513	1502.513	1502.513	1502.513	1502.513	1502.513	1502.513	1502.513
180	1458.000	1458.000	1458.000	1458.000	1458.000	1458.000	1458.000	1458.000	1458.000	1458.000

Vert. Angles

Horizontal Angles

	<u>150</u>	<u>155</u>	<u>160</u>	<u>165</u>	<u>170</u>	<u>175</u>	<u>180</u>	<u>185</u>	<u>190</u>	<u>195</u>
0	8636.051	8636.051	8636.051	8636.051	8636.051	8636.051	8636.051	8636.051	8636.051	8636.051
5	8297.616	8297.616	8297.616	8297.616	8297.616	8297.616	8297.616	8297.616	8297.616	8297.616
10	7288.285	7288.285	7288.285	7288.285	7288.285	7288.285	7288.285	7288.285	7288.285	7288.285
15	5430.877	5430.877	5430.877	5430.877	5430.877	5430.877	5430.877	5430.877	5430.877	5430.877
20	3260.915	3260.915	3260.915	3260.915	3260.915	3260.915	3260.915	3260.915	3260.915	3260.915
25	1686.200	1686.200	1686.200	1686.200	1686.200	1686.200	1686.200	1686.200	1686.200	1686.200
30	845.091	845.091	845.091	845.091	845.091	845.091	845.091	845.091	845.091	845.091
35	440.961	440.961	440.961	440.961	440.961	440.961	440.961	440.961	440.961	440.961
40	257.210	257.210	257.210	257.210	257.210	257.210	257.210	257.210	257.210	257.210
45	176.981	176.981	176.981	176.981	176.981	176.981	176.981	176.981	176.981	176.981
50	134.179	134.179	134.179	134.179	134.179	134.179	134.179	134.179	134.179	134.179
55	105.114	105.114	105.114	105.114	105.114	105.114	105.114	105.114	105.114	105.114
60	82.419	82.419	82.419	82.419	82.419	82.419	82.419	82.419	82.419	82.419
65	63.108	63.108	63.108	63.108	63.108	63.108	63.108	63.108	63.108	63.108
70	46.186	46.186	46.186	46.186	46.186	46.186	46.186	46.186	46.186	46.186
75	31.455	31.455	31.455	31.455	31.455	31.455	31.455	31.455	31.455	31.455
80	18.315	18.315	18.315	18.315	18.315	18.315	18.315	18.315	18.315	18.315
85	6.968	6.968	6.968	6.968	6.968	6.968	6.968	6.968	6.968	6.968
90	0.598	0.598	0.598	0.598	0.598	0.598	0.598	0.598	0.598	0.598
95	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
100	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
105	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
110	0.806	0.806	0.806	0.806	0.806	0.806	0.806	0.806	0.806	0.806
115	0.806	0.806	0.806	0.806	0.806	0.806	0.806	0.806	0.806	0.806
120	4.030	4.030	4.030	4.030	4.030	4.030	4.030	4.030	4.030	4.030
125	8.867	8.867	8.867	8.867	8.867	8.867	8.867	8.867	8.867	8.867
130	18.540	18.540	18.540	18.540	18.540	18.540	18.540	18.540	18.540	18.540
135	35.467	35.467	35.467	35.467	35.467	35.467	35.467	35.467	35.467	35.467
140	64.486	64.486	64.486	64.486	64.486	64.486	64.486	64.486	64.486	64.486
145	247.463	247.463	247.463	247.463	247.463	247.463	247.463	247.463	247.463	247.463
150	1409.009	1409.009	1409.009	1409.009	1409.009	1409.009	1409.009	1409.009	1409.009	1409.009
155	1798.341	1798.341	1798.341	1798.341	1798.341	1798.341	1798.341	1798.341	1798.341	1798.341
160	1650.024	1650.024	1650.024	1650.024	1650.024	1650.024	1650.024	1650.024	1650.024	1650.024
165	1579.896	1579.896	1579.896	1579.896	1579.896	1579.896	1579.896	1579.896	1579.896	1579.896
170	1547.653	1547.653	1547.653	1547.653	1547.653	1547.653	1547.653	1547.653	1547.653	1547.653
175	1502.513	1502.513	1502.513	1502.513	1502.513	1502.513	1502.513	1502.513	1502.513	1502.513
180	1458.000	1458.000	1458.000	1458.000	1458.000	1458.000	1458.000	1458.000	1458.000	1458.000

Vert. Angles

Horizontal Angles

	<u>200</u>	<u>205</u>	<u>210</u>	<u>215</u>	<u>220</u>	<u>225</u>	<u>230</u>	<u>235</u>	<u>240</u>	<u>245</u>
0	8636.051	8636.051	8636.051	8636.051	8636.051	8636.051	8636.051	8636.051	8636.051	8636.051
5	8297.616	8297.616	8297.616	8297.616	8297.616	8297.616	8297.616	8297.616	8297.616	8297.616

IES INDOOR REPORT

PHOTOMETRIC FILENAME : 8CRDI-TL-20-L20-835U-L40-835D-RDB-XXX-DIM1-UNV-OW-LM-CS-CMXX.IES

CANDELA TABULATION - (Cont.)

10	7288.285	7288.285	7288.285	7288.285	7288.285	7288.285	7288.285	7288.285	7288.285	7288.285
15	5430.877	5430.877	5430.877	5430.877	5430.877	5430.877	5430.877	5430.877	5430.877	5430.877
20	3260.915	3260.915	3260.915	3260.915	3260.915	3260.915	3260.915	3260.915	3260.915	3260.915
25	1686.200	1686.200	1686.200	1686.200	1686.200	1686.200	1686.200	1686.200	1686.200	1686.200
30	845.091	845.091	845.091	845.091	845.091	845.091	845.091	845.091	845.091	845.091
35	440.961	440.961	440.961	440.961	440.961	440.961	440.961	440.961	440.961	440.961
40	257.210	257.210	257.210	257.210	257.210	257.210	257.210	257.210	257.210	257.210
45	176.981	176.981	176.981	176.981	176.981	176.981	176.981	176.981	176.981	176.981
50	134.179	134.179	134.179	134.179	134.179	134.179	134.179	134.179	134.179	134.179
55	105.114	105.114	105.114	105.114	105.114	105.114	105.114	105.114	105.114	105.114
60	82.419	82.419	82.419	82.419	82.419	82.419	82.419	82.419	82.419	82.419
65	63.108	63.108	63.108	63.108	63.108	63.108	63.108	63.108	63.108	63.108
70	46.186	46.186	46.186	46.186	46.186	46.186	46.186	46.186	46.186	46.186
75	31.455	31.455	31.455	31.455	31.455	31.455	31.455	31.455	31.455	31.455
80	18.315	18.315	18.315	18.315	18.315	18.315	18.315	18.315	18.315	18.315
85	6.968	6.968	6.968	6.968	6.968	6.968	6.968	6.968	6.968	6.968
90	0.598	0.598	0.598	0.598	0.598	0.598	0.598	0.598	0.598	0.598
95	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
100	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
105	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
110	0.806	0.806	0.806	0.806	0.806	0.806	0.806	0.806	0.806	0.806
115	0.806	0.806	0.806	0.806	0.806	0.806	0.806	0.806	0.806	0.806
120	4.030	4.030	4.030	4.030	4.030	4.030	4.030	4.030	4.030	4.030
125	8.867	8.867	8.867	8.867	8.867	8.867	8.867	8.867	8.867	8.867
130	18.540	18.540	18.540	18.540	18.540	18.540	18.540	18.540	18.540	18.540
135	35.467	35.467	35.467	35.467	35.467	35.467	35.467	35.467	35.467	35.467
140	64.486	64.486	64.486	64.486	64.486	64.486	64.486	64.486	64.486	64.486
145	247.463	247.463	247.463	247.463	247.463	247.463	247.463	247.463	247.463	247.463
150	1409.009	1409.009	1409.009	1409.009	1409.009	1409.009	1409.009	1409.009	1409.009	1409.009
155	1798.341	1798.341	1798.341	1798.341	1798.341	1798.341	1798.341	1798.341	1798.341	1798.341
160	1650.024	1650.024	1650.024	1650.024	1650.024	1650.024	1650.024	1650.024	1650.024	1650.024
165	1579.896	1579.896	1579.896	1579.896	1579.896	1579.896	1579.896	1579.896	1579.896	1579.896
170	1547.653	1547.653	1547.653	1547.653	1547.653	1547.653	1547.653	1547.653	1547.653	1547.653
175	1502.513	1502.513	1502.513	1502.513	1502.513	1502.513	1502.513	1502.513	1502.513	1502.513
180	1458.000	1458.000	1458.000	1458.000	1458.000	1458.000	1458.000	1458.000	1458.000	1458.000

Vert. Horizontal Angles

	<u>250</u>	<u>255</u>	<u>260</u>	<u>265</u>	<u>270</u>	<u>275</u>	<u>280</u>	<u>285</u>	<u>290</u>	<u>295</u>
0	8636.051	8636.051	8636.051	8636.051	8636.051	8636.051	8636.051	8636.051	8636.051	8636.051
5	8297.616	8297.616	8297.616	8297.616	8297.616	8297.616	8297.616	8297.616	8297.616	8297.616
10	7288.285	7288.285	7288.285	7288.285	7288.285	7288.285	7288.285	7288.285	7288.285	7288.285
15	5430.877	5430.877	5430.877	5430.877	5430.877	5430.877	5430.877	5430.877	5430.877	5430.877
20	3260.915	3260.915	3260.915	3260.915	3260.915	3260.915	3260.915	3260.915	3260.915	3260.915
25	1686.200	1686.200	1686.200	1686.200	1686.200	1686.200	1686.200	1686.200	1686.200	1686.200
30	845.091	845.091	845.091	845.091	845.091	845.091	845.091	845.091	845.091	845.091
35	440.961	440.961	440.961	440.961	440.961	440.961	440.961	440.961	440.961	440.961
40	257.210	257.210	257.210	257.210	257.210	257.210	257.210	257.210	257.210	257.210
45	176.981	176.981	176.981	176.981	176.981	176.981	176.981	176.981	176.981	176.981
50	134.179	134.179	134.179	134.179	134.179	134.179	134.179	134.179	134.179	134.179
55	105.114	105.114	105.114	105.114	105.114	105.114	105.114	105.114	105.114	105.114
60	82.419	82.419	82.419	82.419	82.419	82.419	82.419	82.419	82.419	82.419
65	63.108	63.108	63.108	63.108	63.108	63.108	63.108	63.108	63.108	63.108
70	46.186	46.186	46.186	46.186	46.186	46.186	46.186	46.186	46.186	46.186
75	31.455	31.455	31.455	31.455	31.455	31.455	31.455	31.455	31.455	31.455
80	18.315	18.315	18.315	18.315	18.315	18.315	18.315	18.315	18.315	18.315

IES INDOOR REPORT

PHOTOMETRIC FILENAME : 8CRDI-TL-20-L20-835U-L40-835D-RDB-XXX-DIM1-UNV-OW-LM-CS-CMXX.IES

CANDELA TABULATION - (Cont.)

85	6.968	6.968	6.968	6.968	6.968	6.968	6.968	6.968	6.968	6.968
90	0.598	0.598	0.598	0.598	0.598	0.598	0.598	0.598	0.598	0.598
95	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
100	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
105	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
110	0.806	0.806	0.806	0.806	0.806	0.806	0.806	0.806	0.806	0.806
115	0.806	0.806	0.806	0.806	0.806	0.806	0.806	0.806	0.806	0.806
120	4.030	4.030	4.030	4.030	4.030	4.030	4.030	4.030	4.030	4.030
125	8.867	8.867	8.867	8.867	8.867	8.867	8.867	8.867	8.867	8.867
130	18.540	18.540	18.540	18.540	18.540	18.540	18.540	18.540	18.540	18.540
135	35.467	35.467	35.467	35.467	35.467	35.467	35.467	35.467	35.467	35.467
140	64.486	64.486	64.486	64.486	64.486	64.486	64.486	64.486	64.486	64.486
145	247.463	247.463	247.463	247.463	247.463	247.463	247.463	247.463	247.463	247.463
150	1409.009	1409.009	1409.009	1409.009	1409.009	1409.009	1409.009	1409.009	1409.009	1409.009
155	1798.341	1798.341	1798.341	1798.341	1798.341	1798.341	1798.341	1798.341	1798.341	1798.341
160	1650.024	1650.024	1650.024	1650.024	1650.024	1650.024	1650.024	1650.024	1650.024	1650.024
165	1579.896	1579.896	1579.896	1579.896	1579.896	1579.896	1579.896	1579.896	1579.896	1579.896
170	1547.653	1547.653	1547.653	1547.653	1547.653	1547.653	1547.653	1547.653	1547.653	1547.653
175	1502.513	1502.513	1502.513	1502.513	1502.513	1502.513	1502.513	1502.513	1502.513	1502.513
180	1458.000	1458.000	1458.000	1458.000	1458.000	1458.000	1458.000	1458.000	1458.000	1458.000

Vert.
Angles

Horizontal Angles

	<u>300</u>	<u>305</u>	<u>310</u>	<u>315</u>	<u>320</u>	<u>325</u>	<u>330</u>	<u>335</u>	<u>340</u>	<u>345</u>
0	8636.051	8636.051	8636.051	8636.051	8636.051	8636.051	8636.051	8636.051	8636.051	8636.051
5	8297.616	8297.616	8297.616	8297.616	8297.616	8297.616	8297.616	8297.616	8297.616	8297.616
10	7288.285	7288.285	7288.285	7288.285	7288.285	7288.285	7288.285	7288.285	7288.285	7288.285
15	5430.877	5430.877	5430.877	5430.877	5430.877	5430.877	5430.877	5430.877	5430.877	5430.877
20	3260.915	3260.915	3260.915	3260.915	3260.915	3260.915	3260.915	3260.915	3260.915	3260.915
25	1686.200	1686.200	1686.200	1686.200	1686.200	1686.200	1686.200	1686.200	1686.200	1686.200
30	845.091	845.091	845.091	845.091	845.091	845.091	845.091	845.091	845.091	845.091
35	440.961	440.961	440.961	440.961	440.961	440.961	440.961	440.961	440.961	440.961
40	257.210	257.210	257.210	257.210	257.210	257.210	257.210	257.210	257.210	257.210
45	176.981	176.981	176.981	176.981	176.981	176.981	176.981	176.981	176.981	176.981
50	134.179	134.179	134.179	134.179	134.179	134.179	134.179	134.179	134.179	134.179
55	105.114	105.114	105.114	105.114	105.114	105.114	105.114	105.114	105.114	105.114
60	82.419	82.419	82.419	82.419	82.419	82.419	82.419	82.419	82.419	82.419
65	63.108	63.108	63.108	63.108	63.108	63.108	63.108	63.108	63.108	63.108
70	46.186	46.186	46.186	46.186	46.186	46.186	46.186	46.186	46.186	46.186
75	31.455	31.455	31.455	31.455	31.455	31.455	31.455	31.455	31.455	31.455
80	18.315	18.315	18.315	18.315	18.315	18.315	18.315	18.315	18.315	18.315
85	6.968	6.968	6.968	6.968	6.968	6.968	6.968	6.968	6.968	6.968
90	0.598	0.598	0.598	0.598	0.598	0.598	0.598	0.598	0.598	0.598
95	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
100	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
105	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
110	0.806	0.806	0.806	0.806	0.806	0.806	0.806	0.806	0.806	0.806
115	0.806	0.806	0.806	0.806	0.806	0.806	0.806	0.806	0.806	0.806
120	4.030	4.030	4.030	4.030	4.030	4.030	4.030	4.030	4.030	4.030
125	8.867	8.867	8.867	8.867	8.867	8.867	8.867	8.867	8.867	8.867
130	18.540	18.540	18.540	18.540	18.540	18.540	18.540	18.540	18.540	18.540
135	35.467	35.467	35.467	35.467	35.467	35.467	35.467	35.467	35.467	35.467
140	64.486	64.486	64.486	64.486	64.486	64.486	64.486	64.486	64.486	64.486
145	247.463	247.463	247.463	247.463	247.463	247.463	247.463	247.463	247.463	247.463
150	1409.009	1409.009	1409.009	1409.009	1409.009	1409.009	1409.009	1409.009	1409.009	1409.009
155	1798.341	1798.341	1798.341	1798.341	1798.341	1798.341	1798.341	1798.341	1798.341	1798.341

IES INDOOR REPORT

PHOTOMETRIC FILENAME : 8CRDI-TL-20-L20-835U-L40-835D-RDB-XXX-DIM1-UNV-OW-LM-CS-CMXX.IES

CANDELA TABULATION - (Cont.)

160	1650.024	1650.024	1650.024	1650.024	1650.024	1650.024	1650.024	1650.024	1650.024	1650.024
165	1579.896	1579.896	1579.896	1579.896	1579.896	1579.896	1579.896	1579.896	1579.896	1579.896
170	1547.653	1547.653	1547.653	1547.653	1547.653	1547.653	1547.653	1547.653	1547.653	1547.653
175	1502.513	1502.513	1502.513	1502.513	1502.513	1502.513	1502.513	1502.513	1502.513	1502.513
180	1458.000	1458.000	1458.000	1458.000	1458.000	1458.000	1458.000	1458.000	1458.000	1458.000

Vert. Horizontal Angles

	<u>350</u>	<u>355</u>	<u>360</u>
0	8636.051	8636.051	8636.051
5	8297.616	8297.616	8297.616
10	7288.285	7288.285	7288.285
15	5430.877	5430.877	5430.877
20	3260.915	3260.915	3260.915
25	1686.200	1686.200	1686.200
30	845.091	845.091	845.091
35	440.961	440.961	440.961
40	257.210	257.210	257.210
45	176.981	176.981	176.981
50	134.179	134.179	134.179
55	105.114	105.114	105.114
60	82.419	82.419	82.419
65	63.108	63.108	63.108
70	46.186	46.186	46.186
75	31.455	31.455	31.455
80	18.315	18.315	18.315
85	6.968	6.968	6.968
90	0.598	0.598	0.598
95	0.000	0.000	0.000
100	0.000	0.000	0.000
105	0.000	0.000	0.000
110	0.806	0.806	0.806
115	0.806	0.806	0.806
120	4.030	4.030	4.030
125	8.867	8.867	8.867
130	18.540	18.540	18.540
135	35.467	35.467	35.467
140	64.486	64.486	64.486
145	247.463	247.463	247.463
150	1409.009	1409.009	1409.009
155	1798.341	1798.341	1798.341
160	1650.024	1650.024	1650.024
165	1579.896	1579.896	1579.896
170	1547.653	1547.653	1547.653
175	1502.513	1502.513	1502.513
180	1458.000	1458.000	1458.000

IES INDOOR REPORT**PHOTOMETRIC FILENAME : 8CRDI-TL-20-L20-835U-L40-835D-RDB-XXX-DIM1-UNV-OW-LM-CS-CMXX.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	2230.81	N.A.	41.20
0-30	3070.01	N.A.	56.60
0-40	3375.87	N.A.	62.30
0-60	3614.52	N.A.	66.70
0-80	3711.18	N.A.	68.50
0-90	3720.12	N.A.	68.60
10-90	2960.13	N.A.	54.60
20-40	1145.06	N.A.	21.10
20-50	1288.33	N.A.	23.80
40-70	301.70	N.A.	5.60
60-80	96.66	N.A.	1.80
70-80	33.61	N.A.	0.60
80-90	8.94	N.A.	0.20
90-110	0.37	N.A.	0.00
90-120	1.96	N.A.	0.00
90-130	10.90	N.A.	0.20
90-150	336.29	N.A.	6.20
90-180	1700.08	N.A.	31.40
110-180	1699.7	N.A.	31.40
0-180	5420.2	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	759.99
10-20	1470.82
20-30	839.20
30-40	305.86
40-50	143.27
50-60	95.38
60-70	63.05
70-80	33.61
80-90	8.94
90-100	0.16
100-110	0.21
110-120	1.58
120-130	8.94
130-140	29.42
140-150	295.97
150-160	767.56
160-170	451.71
170-180	144.51

IES INDOOR REPORT

PHOTOMETRIC FILENAME : 8CRDI-TL-20-L20-835U-L40-835D-RDB-XXX-DIM1-UNV-OW-LM-CS-CMXX.IES

COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

Effective Floor Cavity Reflectance 0.20

RC	80				70				50			30			10			0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	112	112	112	112	105	105	105	105	94	94	94	83	83	83	73	73	73	69
1	105	102	99	97	100	97	95	92	87	86	84	78	77	76	70	69	68	65
2	99	94	90	86	94	90	86	83	81	79	76	74	72	70	67	65	64	61
3	94	87	82	78	89	83	79	75	76	73	70	70	67	65	64	62	60	57
4	89	81	75	71	85	78	73	69	72	68	65	66	63	61	61	59	57	54
5	84	76	70	66	80	73	68	64	68	64	60	63	60	57	58	56	54	52
6	80	71	65	61	77	69	63	60	64	60	57	60	56	54	56	53	51	49
7	76	67	61	57	73	65	60	56	61	57	53	57	54	51	53	51	49	47
8	73	64	58	54	70	62	56	53	58	54	51	55	51	49	51	49	47	45
9	70	60	55	51	67	59	53	50	55	51	48	52	49	46	49	47	45	43
10	67	57	52	48	64	56	51	47	53	49	46	50	47	44	48	45	43	41

IES INDOOR REPORT

PHOTOMETRIC FILENAME : 8CRDI-TL-20-L20-835U-L40-835D-RDB-XXX-DIM1-UNV-OW-LM-CS-CMXX.IES

UGR TABLE - CORRECTED

Reflectances

Ceiling Cavity	70	70	50	50	30	70	70	50	50	30
Walls	50	30	50	30	30	50	30	50	30	30
Floor Cavity	20	20	20	20	20	20	20	20	20	20

Room Size UGR Viewed Crosswise

X=2H	Y=2H	13.0	13.8	13.8	14.6	15.6	13.0	13.8	13.8	14.6	15.6
	3H	14.4	15.1	15.2	15.9	16.9	14.4	15.1	15.2	15.9	16.9
	4H	14.9	15.5	15.7	16.3	17.4	14.9	15.5	15.7	16.3	17.4
	6H	15.2	15.8	16.1	16.6	17.7	15.2	15.8	16.1	16.6	17.7
	8H	15.3	15.8	16.2	16.7	17.7	15.3	15.8	16.2	16.7	17.7
	12H	15.3	15.9	16.2	16.7	17.8	15.3	15.9	16.2	16.7	17.8

UGR Viewed Endwise

4H	2H	13.4	14.0	14.2	14.8	15.9	13.4	14.0	14.2	14.8	15.9
	3H	15.0	15.5	15.8	16.4	17.4	15.0	15.5	15.8	16.4	17.4
	4H	15.6	16.1	16.5	16.9	18.0	15.6	16.1	16.5	16.9	18.0
	6H	16.0	16.4	16.9	17.3	18.4	16.0	16.4	16.9	17.3	18.4
	8H	16.2	16.6	17.1	17.4	18.5	16.2	16.6	17.1	17.4	18.5
	12H	16.2	16.6	17.1	17.5	18.6	16.2	16.6	17.1	17.5	18.6

8H	4H	15.8	16.1	16.6	17.0	18.1	15.8	16.1	16.6	17.0	18.1
	6H	16.3	16.6	17.2	17.6	18.6	16.3	16.6	17.2	17.6	18.6
	8H	16.5	16.8	17.4	17.7	18.8	16.5	16.8	17.4	17.7	18.8
	12H	16.6	16.9	17.6	17.8	18.9	16.6	16.9	17.6	17.8	18.9

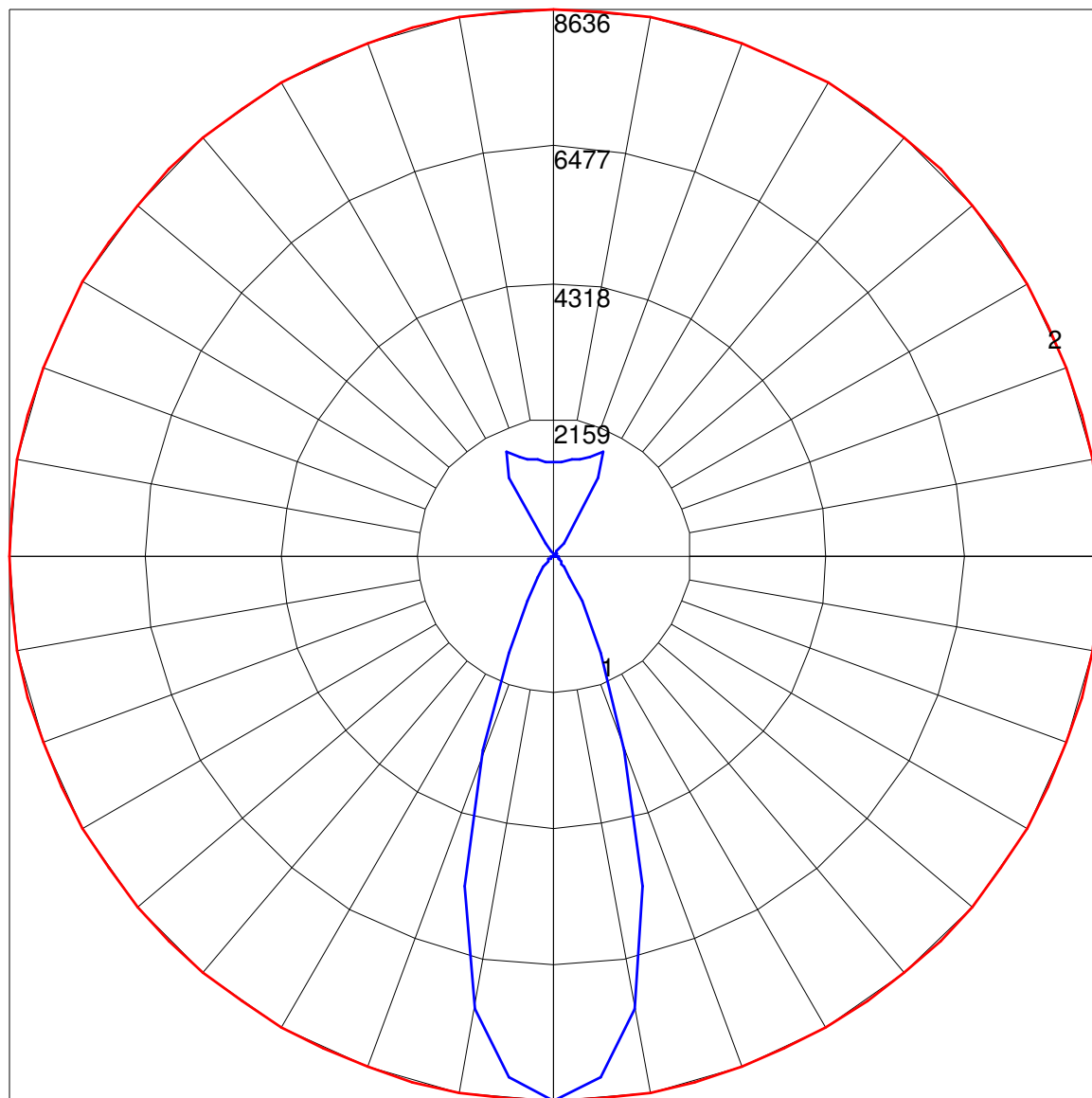
12H	4H	15.7	16.1	16.6	17.0	18.1	15.7	16.1	16.6	17.0	18.1
	6H	16.3	16.6	17.3	17.5	18.6	16.3	16.6	17.3	17.5	18.6
	8H	16.6	16.8	17.5	17.7	18.9	16.6	16.8	17.5	17.7	18.9

Maximum UGR = 18.9

IES INDOOR REPORT

PHOTOMETRIC FILENAME : 8CRDI-TL-20-L20-835U-L40-835D-RDB-XXX-DIM1-UNV-OW-LM-CS-CMXX.IES

POLAR GRAPH



Maximum Candela = 8636.051 Located At Horizontal Angle = 0, Vertical Angle = 0

1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)

2 - Horizontal Cone Through Vertical Angle (0) (Through Max. Cd.)