



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 6DR-TL-L20-940-DIM-UNV-OM-OF-CS_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN FROM 12326812.04

[TESTLAB] UL Verification Services Inc.

[ISSUEDATE] 10/25/2022

[MANUFAC] WILLIAMS INDOOR

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

[LUMCAT] 6DR-TL-L20-940-DIM-UNV-OM-OF-CS

[LUMINAIRE] Black formed aluminum housing, specular reflector, no lens

[MORE] enclosure

[LAMP] One white LED

[_SEARCH_SOURCETYPE] LED

[_SEARCH_APPLICATION] Indoor, Architectural, Classroom, Commercial, Healthcare, Office, Downlight

[_SEARCH_MOUNTING] Recessed

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	1665
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	87
Total Luminaire Watts	19.1
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.58
Spacing Criterion (90-270)	0.58
Spacing Criterion (Diagonal)	0.68
Basic Luminous Shape	Circular
Luminous Length (0-180)	0.50 ft (Diameter)
Luminous Width (90-270)	0.50 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	3005	3005	3005
55	1106	1106	1106
65	435	435	435
75	196	196	196
85	158	158	158

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 6DR-TL-L20-940-DIM-UNV-OM-OF-CS_.IES

CANDELA TABULATION

	<u>0</u>
0.0	3369.463
0.5	3374.501
1.0	3384.576
1.5	3390.454
2.0	3404.728
2.5	3410.605
3.0	3420.681
3.5	3423.200
4.0	3415.643
4.5	3375.340
5.0	3335.038
5.5	3292.216
6.0	3223.366
6.5	3154.516
7.0	3081.468
7.5	2999.183
8.0	2903.464
8.5	2805.227
9.0	2703.631
9.5	2604.554
10.0	2513.033
10.5	2432.428
11.0	2362.738
11.5	2303.124
12.0	2244.349
12.5	2186.415
13.0	2130.999
13.5	2078.941
14.0	2031.921
14.5	1989.940
15.0	1952.156
15.5	1916.051
16.0	1880.787
16.5	1843.843
17.0	1806.059
17.5	1768.275
18.0	1733.850
18.5	1703.623
19.0	1672.557
19.5	1640.651
20.0	1605.386
20.5	1567.602
21.0	1528.979
21.5	1489.516
22.0	1447.534
22.5	1407.231
23.0	1364.410
23.5	1320.749
24.0	1275.408
24.5	1230.068
25.0	1185.567
25.5	1141.067
26.0	1099.924
26.5	1060.461

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 6DR-TL-L20-940-DIM-UNV-OM-OF-CS_.IES

CANDELA TABULATION - (Cont.)

27.0	1023.517
27.5	988.253
28.0	956.346
28.5	927.799
29.0	900.930
29.5	874.902
30.0	842.156
30.5	801.182
31.0	754.162
31.5	702.440
32.0	649.963
32.5	597.150
33.0	544.337
33.5	488.921
34.0	432.665
34.5	381.363
35.0	332.076
35.5	285.561
36.0	240.808
36.5	200.757
37.0	167.927
37.5	144.837
38.0	132.411
38.5	124.014
39.0	115.618
39.5	106.718
40.0	97.230
40.5	87.154
41.0	77.498
41.5	68.514
42.0	60.874
42.5	54.828
43.0	50.126
43.5	46.516
44.0	43.493
44.5	41.058
45.0	38.791
45.5	36.860
46.0	35.013
46.5	33.334
47.0	31.654
47.5	30.059
48.0	28.464
48.5	26.868
49.0	25.273
49.5	23.846
50.0	22.502
50.5	21.159
51.0	19.899
51.5	18.640
52.0	17.380
52.5	16.289
53.0	15.197
53.5	14.190
54.0	13.266
54.5	12.427

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 6DR-TL-L20-940-DIM-UNV-OM-OF-CS_.IES

CANDELA TABULATION - (Cont.)

55.0	11.587
55.5	10.915
56.0	10.160
56.5	9.572
57.0	8.984
57.5	8.396
58.0	7.893
58.5	7.389
59.0	6.969
59.5	6.549
60.0	6.129
60.5	5.710
61.0	5.374
61.5	5.038
62.0	4.786
62.5	4.534
63.0	4.198
63.5	4.030
64.0	3.778
64.5	3.526
65.0	3.359
65.5	3.107
66.0	2.939
66.5	2.771
67.0	2.603
67.5	2.435
68.0	2.351
68.5	2.183
69.0	2.015
69.5	1.931
70.0	1.847
70.5	1.679
71.0	1.595
71.5	1.511
72.0	1.427
72.5	1.343
73.0	1.259
73.5	1.175
74.0	1.092
74.5	1.008
75.0	0.924
75.5	0.924
76.0	0.840
76.5	0.756
77.0	0.756
77.5	0.672
78.0	0.672
78.5	0.588
79.0	0.588
79.5	0.504
80.0	0.504
80.5	0.420
81.0	0.420
81.5	0.420
82.0	0.336
82.5	0.336

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 6DR-TL-L20-940-DIM-UNV-OM-OF-CS_.IES

CANDELA TABULATION - (Cont.)

83.0	0.336
83.5	0.252
84.0	0.252
84.5	0.252
85.0	0.252
85.5	0.168
86.0	0.168
86.5	0.168
87.0	0.168
87.5	0.168
88.0	0.084
88.5	0.084
89.0	0.084
89.5	0.084
90.0	0.084
90.5	0.000
91.0	0.000
91.5	0.000
92.0	0.000
92.5	0.000
93.0	0.000
93.5	0.000
94.0	0.000
94.5	0.000
95.0	0.000
95.5	0.000
96.0	0.000
96.5	0.000
97.0	0.000
97.5	0.000
98.0	0.000
98.5	0.000
99.0	0.000
99.5	0.000
100.0	0.000
100.5	0.000
101.0	0.000
101.5	0.000
102.0	0.000
102.5	0.000
103.0	0.000
103.5	0.000
104.0	0.000
104.5	0.000
105.0	0.000
105.5	0.000
106.0	0.000
106.5	0.000
107.0	0.000
107.5	0.000
108.0	0.000
108.5	0.000
109.0	0.000
109.5	0.000
110.0	0.000
110.5	0.000

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 6DR-TL-L20-940-DIM-UNV-OM-OF-CS_.IES

CANDELA TABULATION - (Cont.)

111.0	0.000
111.5	0.000
112.0	0.000
112.5	0.000
113.0	0.000
113.5	0.000
114.0	0.000
114.5	0.000
115.0	0.000
115.5	0.000
116.0	0.000
116.5	0.000
117.0	0.000
117.5	0.000
118.0	0.000
118.5	0.000
119.0	0.000
119.5	0.000
120.0	0.000
120.5	0.000
121.0	0.000
121.5	0.000
122.0	0.000
122.5	0.000
123.0	0.000
123.5	0.000
124.0	0.000
124.5	0.000
125.0	0.000
125.5	0.000
126.0	0.000
126.5	0.000
127.0	0.000
127.5	0.000
128.0	0.000
128.5	0.000
129.0	0.000
129.5	0.000
130.0	0.000
130.5	0.000
131.0	0.000
131.5	0.000
132.0	0.000
132.5	0.000
133.0	0.000
133.5	0.000
134.0	0.000
134.5	0.000
135.0	0.000
135.5	0.000
136.0	0.000
136.5	0.000
137.0	0.000
137.5	0.000
138.0	0.000
138.5	0.000

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 6DR-TL-L20-940-DIM-UNV-OM-OF-CS_.IES

CANDELA TABULATION - (Cont.)

139.0	0.000
139.5	0.000
140.0	0.000
140.5	0.000
141.0	0.000
141.5	0.000
142.0	0.000
142.5	0.000
143.0	0.000
143.5	0.000
144.0	0.000
144.5	0.000
145.0	0.000
145.5	0.000
146.0	0.000
146.5	0.000
147.0	0.000
147.5	0.000
148.0	0.000
148.5	0.000
149.0	0.000
149.5	0.000
150.0	0.000
150.5	0.000
151.0	0.000
151.5	0.000
152.0	0.000
152.5	0.000
153.0	0.000
153.5	0.000
154.0	0.000
154.5	0.000
155.0	0.000
155.5	0.000
156.0	0.000
156.5	0.000
157.0	0.000
157.5	0.000
158.0	0.000
158.5	0.000
159.0	0.000
159.5	0.000
160.0	0.000
160.5	0.000
161.0	0.000
161.5	0.000
162.0	0.000
162.5	0.000
163.0	0.000
163.5	0.000
164.0	0.000
164.5	0.000
165.0	0.000
165.5	0.000
166.0	0.000
166.5	0.000

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 6DR-TL-L20-940-DIM-UNV-OM-OF-CS_.IES

CANDELA TABULATION - (Cont.)

167.0	0.000
167.5	0.000
168.0	0.000
168.5	0.000
169.0	0.000
169.5	0.000
170.0	0.000
170.5	0.000
171.0	0.000
171.5	0.000
172.0	0.000
172.5	0.000
173.0	0.000
173.5	0.000
174.0	0.000
174.5	0.000
175.0	0.000
175.5	0.000
176.0	0.000
176.5	0.000
177.0	0.000
177.5	0.000
178.0	0.000
178.5	0.000
179.0	0.000
179.5	0.000
180.0	0.000

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 6DR-TL-L20-940-DIM-UNV-OM-OF-CS_.IES

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	840.28	N.A.	50.50
0-30	1384.58	N.A.	83.20
0-40	1614.9	N.A.	97.00
0-60	1660.17	N.A.	99.70
0-80	1664.72	N.A.	100.00
0-90	1664.98	N.A.	100.00
10-90	1374.66	N.A.	82.60
20-40	774.62	N.A.	46.50
20-50	808.77	N.A.	48.60
40-70	48.74	N.A.	2.90
60-80	4.56	N.A.	0.30
70-80	1.08	N.A.	0.10
80-90	0.26	N.A.	0.00
90-110	0.00	N.A.	0.00
90-120	0.00	N.A.	0.00
90-130	0.00	N.A.	0.00
90-150	0.00	N.A.	0.00
90-180	0.00	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	1664.98	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	290.32
10-20	549.96
20-30	544.30
30-40	230.33
40-50	34.14
50-60	11.12
60-70	3.48
70-80	1.08
80-90	0.26
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 6DR-TL-L20-940-DIM-UNV-OM-OF-CS_.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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	114	112	109	107	112	109	107	106	105	104	102	102	100	99	98	97	96	95
2	109	105	101	98	107	103	100	97	100	97	95	97	95	93	94	92	91	89
3	104	99	94	91	103	97	93	90	95	91	89	92	90	87	90	88	86	84
4	100	93	88	84	98	92	88	84	90	86	83	88	85	82	86	83	81	80
5	96	88	83	79	94	87	82	79	86	81	78	84	80	77	82	79	77	75
6	92	84	78	75	90	83	78	74	81	77	74	80	76	73	79	75	73	72
7	88	80	74	70	87	79	74	70	78	73	70	77	73	70	75	72	69	68
8	84	76	70	67	83	75	70	67	74	70	66	73	69	66	72	69	66	65
9	81	72	67	63	80	72	67	63	71	66	63	70	66	63	69	65	63	62
10	78	69	64	60	77	69	64	60	68	63	60	67	63	60	66	63	60	59

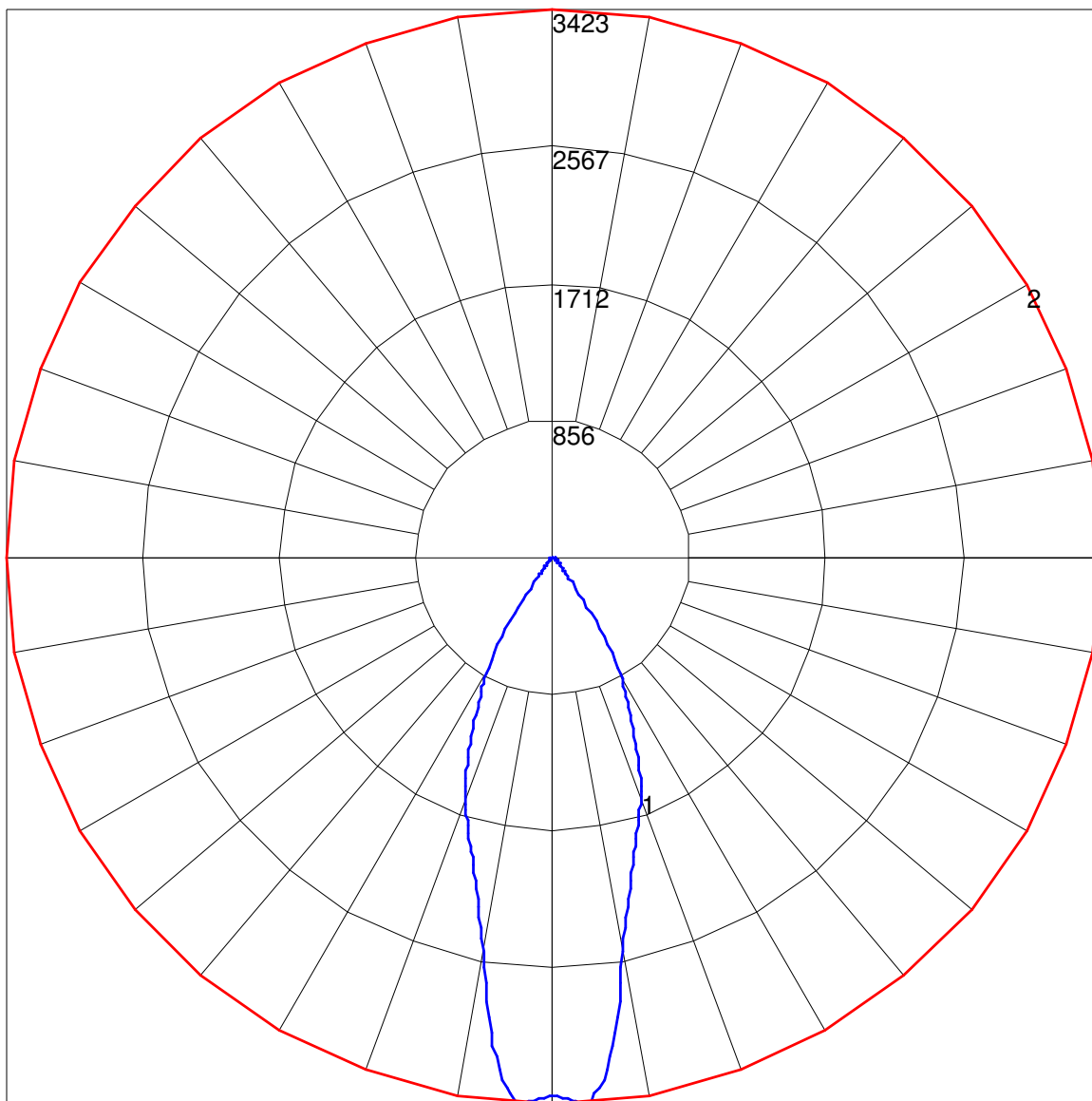
IES INDOOR REPORT
PHOTOMETRIC FILENAME : 6DR-TL-L20-940-DIM-UNV-OM-OF-CS_.IES

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					UGR Viewed Endwise				
X=2H	Y=2H	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
	3H	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
	4H	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
	6H	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
	8H	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
	12H	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
4H	2H	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
	3H	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
	4H	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
	6H	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
	8H	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
	12H	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
8H	4H	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
	6H	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
	8H	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
	12H	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
12H	4H	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
	6H	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
	8H	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8

Maximum UGR = 1.8

POLAR GRAPH



Maximum Candela = 3423.2 Located At Horizontal Angle = 0, Vertical Angle = 3.5
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (3.5) (Through Max. Cd.)