



IES INDOOR REPORT

PHOTOMETRIC FILENAME : HS6DR-TL-L60-835-DIM-UNV-LW-OF-WH_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] GEN FROM 12326812.07
 [TESTLAB] UL Verification Services Inc.
 [ISSUEDATE] AUGUST 2022
 [MANUFAC] WILLIAMS INDOOR
 [OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO.
 [LUMCAT] HS6DR-TL-L60-835-DIM-UNV-LW-OF-WH
 [LUMINAIRE] Black formed aluminum housing, white reflector, clear glas
 [MORE] s patterned lens 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	6067
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	80
Total Luminaire Watts	76.1
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.08
Spacing Criterion (90-270)	1.08
Spacing Criterion (Diagonal)	0.98
Basic Luminous Shape	Circular
Luminous Length (0-180)	0.46 ft (Diameter)
Luminous Width (90-270)	0.46 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	100858	100858	100858
55	83968	83968	83968
65	63792	63792	63792
75	46261	46261	46261
85	30147	30147	30147

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CANDELA TABULATION

	<u>0</u>
0.0	3859.371
0.5	3858.594
1.0	3855.485
1.5	3850.823
2.0	3844.995
2.5	3837.224
3.0	3829.453
3.5	3820.517
4.0	3812.357
4.5	3804.198
5.0	3798.370
5.5	3792.930
6.0	3787.879
6.5	3782.828
7.0	3777.389
7.5	3772.338
8.0	3767.287
8.5	3762.624
9.0	3757.962
9.5	3754.076
10.0	3750.191
10.5	3747.083
11.0	3744.363
11.5	3742.809
12.0	3740.089
12.5	3737.369
13.0	3733.484
13.5	3728.433
14.0	3722.216
14.5	3715.222
15.0	3707.840
15.5	3698.515
16.0	3688.413
16.5	3678.311
17.0	3668.209
17.5	3657.718
18.0	3646.451
18.5	3633.629
19.0	3619.253
19.5	3603.323
20.0	3585.061
20.5	3565.246
21.0	3540.768
21.5	3511.627
22.0	3478.601
22.5	3441.301
23.0	3400.505
23.5	3356.211
24.0	3307.255
24.5	3254.413
25.0	3197.298
25.5	3137.851
26.0	3074.519
26.5	3008.467

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CANDELA TABULATION - (Cont.)

27.0	2938.142
27.5	2865.873
28.0	2789.719
28.5	2709.291
29.0	2625.755
29.5	2537.945
30.0	2447.804
30.5	2354.943
31.0	2262.082
31.5	2168.443
32.0	2077.525
32.5	1990.492
33.0	1906.956
33.5	1828.859
34.0	1756.979
34.5	1691.704
35.0	1633.423
35.5	1579.805
36.0	1532.791
36.5	1489.663
37.0	1451.198
37.5	1416.618
38.0	1385.146
38.5	1356.394
39.0	1329.196
39.5	1304.718
40.0	1281.017
40.5	1258.871
41.0	1238.278
41.5	1218.074
42.0	1198.647
42.5	1180.774
43.0	1162.513
43.5	1144.640
44.0	1127.155
44.5	1110.060
45.0	1092.575
45.5	1075.868
46.0	1058.772
46.5	1041.677
47.0	1024.192
47.5	1007.096
48.0	989.612
48.5	972.128
49.0	954.643
49.5	936.382
50.0	918.898
50.5	901.025
51.0	883.152
51.5	864.891
52.0	846.629
52.5	828.368
53.0	810.107
53.5	791.845
54.0	774.361
54.5	756.488

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CANDELA TABULATION - (Cont.)

55.0	737.838
55.5	719.577
56.0	701.315
56.5	684.219
57.0	667.124
57.5	649.251
58.0	631.378
58.5	613.894
59.0	596.798
59.5	579.702
60.0	563.383
60.5	547.065
61.0	531.135
61.5	515.204
62.0	500.051
62.5	484.898
63.0	470.134
63.5	455.369
64.0	440.993
64.5	427.006
65.0	413.018
65.5	399.419
66.0	385.859
66.5	372.532
67.0	359.361
67.5	346.461
68.0	333.795
68.5	321.090
69.0	308.773
69.5	296.573
70.0	284.722
70.5	273.260
71.0	262.032
71.5	251.152
72.0	240.662
72.5	230.482
73.0	220.574
73.5	210.861
74.0	201.536
74.5	192.405
75.0	183.430
75.5	174.765
76.0	166.256
76.5	157.903
77.0	149.782
77.5	141.817
78.0	134.085
78.5	126.509
79.0	119.088
79.5	111.938
80.0	104.828
80.5	97.951
81.0	91.152
81.5	84.391
82.0	77.786
82.5	71.219

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CANDELA TABULATION - (Cont.)

83.0	64.809
83.5	58.514
84.0	52.298
84.5	46.197
85.0	40.253
85.5	34.502
86.0	28.946
86.5	23.584
87.0	18.378
87.5	14.026
88.0	10.724
88.5	7.849
89.0	5.440
89.5	3.419
90.0	2.176
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

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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
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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

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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
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151.0	0.000
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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
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159.0	0.000
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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

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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

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	1405.84	N.A.	23.20
0-30	2841.78	N.A.	46.80
0-40	3906.54	N.A.	64.40
0-60	5409.97	N.A.	89.20
0-80	6018.92	N.A.	99.20
0-90	6067.05	N.A.	100.00
10-90	5705.89	N.A.	94.00
20-40	2500.7	N.A.	41.20
20-50	3344.42	N.A.	55.10
40-70	1915.12	N.A.	31.60
60-80	608.96	N.A.	10.00
70-80	197.27	N.A.	3.30
80-90	48.12	N.A.	0.80
90-110	0.06	N.A.	0.00
90-120	0.06	N.A.	0.00
90-130	0.06	N.A.	0.00
90-150	0.06	N.A.	0.00
90-180	0.06	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	6067.11	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	361.16
10-20	1044.69
20-30	1435.94
30-40	1064.76
40-50	843.72
50-60	659.70
60-70	411.69
70-80	197.27
80-90	48.12
90-100	0.06
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

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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	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	88
2	103	96	91	86	101	94	89	85	91	87	83	88	84	81	85	82	79	78
3	96	87	80	75	93	85	79	74	83	77	73	80	75	72	78	74	70	69
4	89	79	72	66	87	78	71	65	75	69	65	73	68	64	71	67	63	61
5	83	72	64	59	81	71	64	58	69	63	58	67	62	57	65	61	57	55
6	78	66	58	53	76	65	58	53	64	57	52	62	56	52	61	55	52	50
7	73	61	53	48	71	60	53	48	59	52	48	57	52	47	56	51	47	45
8	68	57	49	44	67	56	49	44	55	48	44	54	48	43	52	47	43	42
9	64	53	45	40	63	52	45	40	51	45	40	50	44	40	49	44	40	38
10	61	49	42	37	60	49	42	37	48	42	37	47	41	37	46	41	37	35

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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	25.3	26.7	25.7	27.0	27.3	25.3	26.7	25.7	27.0	27.3
	3H	26.5	27.8	26.9	28.1	28.4	26.5	27.8	26.9	28.1	28.4
	4H	26.9	28.1	27.3	28.4	28.8	26.9	28.1	27.3	28.4	28.8
	6H	27.2	28.2	27.6	28.6	29.0	27.2	28.2	27.6	28.6	29.0
	8H	27.2	28.3	27.7	28.7	29.1	27.2	28.3	27.7	28.7	29.1
	12H	27.3	28.3	27.7	28.6	29.1	27.3	28.3	27.7	28.6	29.1

UGR Viewed Endwise

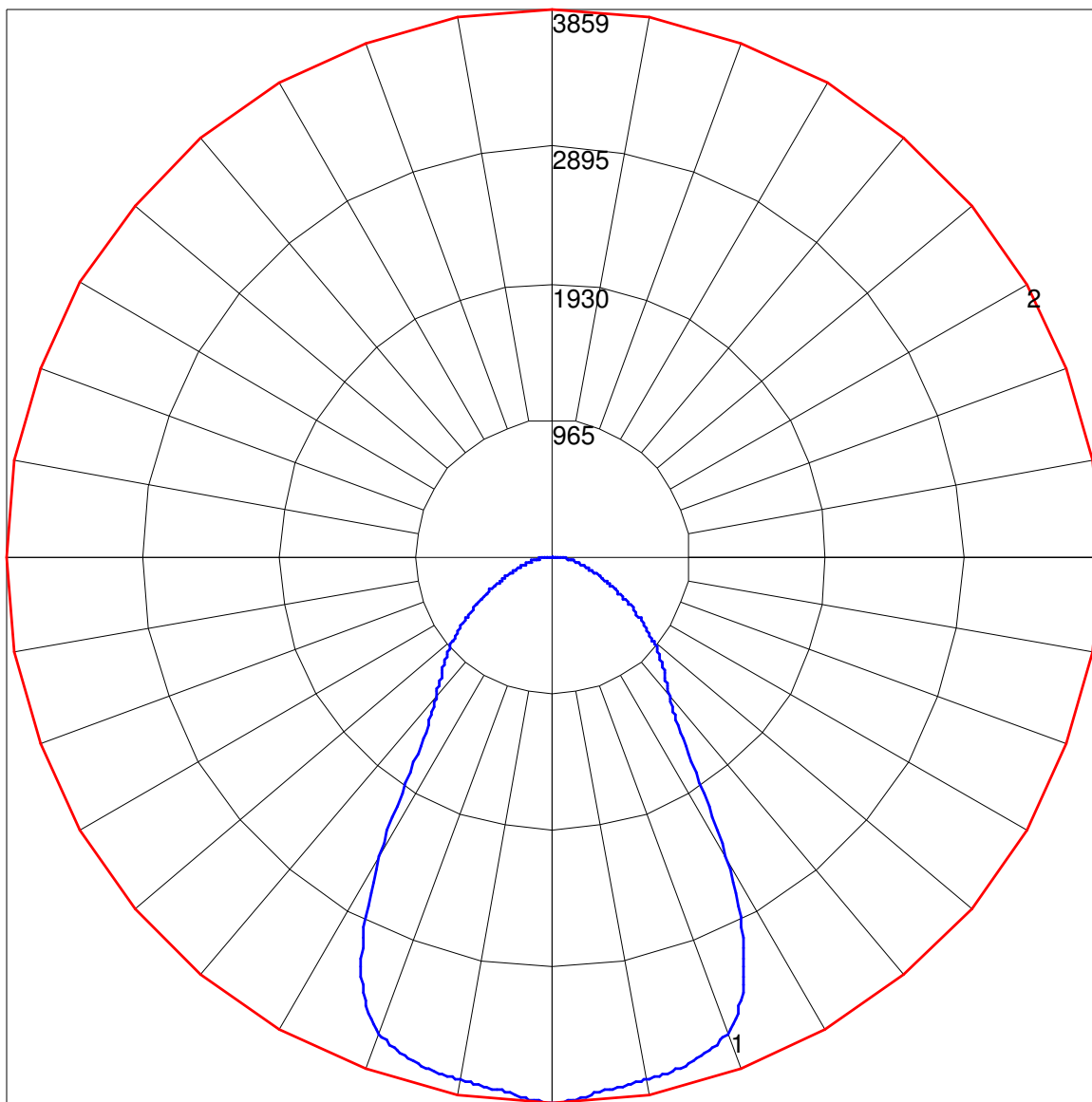
4H	2H	25.7	26.9	26.1	27.2	27.6	25.7	26.9	26.1	27.2	27.6
	3H	27.1	28.1	27.5	28.5	28.9	27.1	28.1	27.5	28.5	28.9
	4H	27.6	28.5	28.1	28.9	29.3	27.6	28.5	28.1	28.9	29.3
	6H	28.0	28.7	28.5	29.2	29.6	28.0	28.7	28.5	29.2	29.6
	8H	28.1	28.8	28.5	29.2	29.7	28.1	28.8	28.5	29.2	29.7
	12H	28.2	28.8	28.6	29.3	29.7	28.2	28.8	28.6	29.3	29.7

8H	4H	27.8	28.5	28.2	28.9	29.4	27.8	28.5	28.2	28.9	29.4
	6H	28.2	28.8	28.7	29.3	29.8	28.2	28.8	28.7	29.3	29.8
	8H	28.4	28.9	28.9	29.4	29.9	28.4	28.9	28.9	29.4	29.9
	12H	28.5	29.0	29.0	29.5	30.0	28.5	29.0	29.0	29.5	30.0

12H	4H	27.8	28.4	28.3	28.9	29.3	27.8	28.4	28.3	28.9	29.3
	6H	28.3	28.8	28.8	29.2	29.8	28.3	28.8	28.8	29.2	29.8
	8H	28.5	28.9	29.0	29.4	30.0	28.5	28.9	29.0	29.4	30.0

Maximum UGR = 30.0

POLAR GRAPH



Maximum Candela = 3859.371 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.)