



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 6DR-TL-L20-840-DIM-UNV-SW-OF-WH_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST]Gen From 12326812.11
 [TESTLAB] UL Verification Services Inc.
 [ISSUEDATE] 05-02-2022
 [MANUFAC] WILLIAMS INDOOR
 [OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO.
 [LUMCAT] 6DR-TL-L20-840-DIM-UNV-SW-OF-WH
 [LUMINAIRE] Black formed aluminum housing, white reflector, frosted pl
 [MORE] astic 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	1341
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	69
Total Luminaire Watts	19.5
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.94
Spacing Criterion (90-270)	0.94
Spacing Criterion (Diagonal)	1.02
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	23973	23973	23973
55	21849	21849	21849
65	21650	21650	21650
75	22607	22607	22607
85	18464	18464	18464

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CANDELA TABULATION

	<u>0</u>
0.0	754.793
0.5	754.590
1.0	754.084
1.5	753.174
2.0	751.858
2.5	750.239
3.0	748.316
3.5	746.190
4.0	743.761
4.5	741.231
5.0	738.701
5.5	735.867
6.0	732.831
6.5	729.694
7.0	726.253
7.5	722.711
8.0	718.966
8.5	715.019
9.0	710.971
9.5	706.720
10.0	702.368
10.5	697.814
11.0	693.057
11.5	687.997
12.0	682.836
12.5	677.370
13.0	671.804
13.5	665.934
14.0	659.862
14.5	653.688
15.0	647.211
15.5	640.633
16.0	633.953
16.5	627.172
17.0	620.392
17.5	613.510
18.0	606.628
18.5	599.644
19.0	592.762
19.5	585.779
20.0	578.695
20.5	571.712
21.0	564.526
21.5	557.239
22.0	549.851
22.5	542.261
23.0	534.569
23.5	526.776
24.0	518.882
24.5	510.887
25.0	502.892
25.5	494.896
26.0	486.901
26.5	479.007

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CANDELA TABULATION - (Cont.)

27.0	471.214
27.5	463.421
28.0	455.831
28.5	448.240
29.0	440.954
29.5	433.667
30.0	426.582
30.5	419.599
31.0	412.616
31.5	405.835
32.0	399.054
32.5	392.375
33.0	385.695
33.5	379.218
34.0	372.640
34.5	366.365
35.0	360.191
35.5	354.018
36.0	347.946
36.5	341.974
37.0	336.206
37.5	330.538
38.0	324.972
38.5	319.507
39.0	314.244
39.5	309.083
40.0	304.022
40.5	299.063
41.0	294.306
41.5	289.651
42.0	285.097
42.5	280.644
43.0	276.292
43.5	272.041
44.0	267.791
44.5	263.742
45.0	259.694
45.5	255.747
46.0	251.901
46.5	248.055
47.0	244.210
47.5	240.566
48.0	236.822
48.5	233.178
49.0	229.636
49.5	226.195
50.0	222.754
50.5	219.414
51.0	216.074
51.5	212.836
52.0	209.597
52.5	206.460
53.0	203.322
53.5	200.489
54.0	197.756
54.5	194.922

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CANDELA TABULATION - (Cont.)

55.0	191.987
55.5	189.052
56.0	186.219
56.5	183.486
57.0	181.158
57.5	178.527
58.0	175.794
58.5	173.163
59.0	170.532
59.5	167.900
60.0	165.269
60.5	162.739
61.0	160.209
61.5	157.679
62.0	155.148
62.5	152.618
63.0	150.088
63.5	147.659
64.0	145.129
64.5	142.599
65.0	140.170
65.5	137.640
66.0	135.110
66.5	132.580
67.0	130.049
67.5	127.621
68.0	125.090
68.5	122.661
69.0	120.131
69.5	117.702
70.0	115.172
70.5	112.743
71.0	110.314
71.5	107.784
72.0	105.355
72.5	102.825
73.0	100.285
73.5	97.694
74.0	95.052
74.5	92.360
75.0	89.638
75.5	86.875
76.0	84.051
76.5	81.177
77.0	78.242
77.5	75.257
78.0	72.200
78.5	69.093
79.0	65.956
79.5	62.748
80.0	59.499
80.5	56.210
81.0	52.870
81.5	49.480
82.0	46.039
82.5	42.547

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CANDELA TABULATION - (Cont.)

83.0	39.015
83.5	35.463
84.0	31.870
84.5	28.267
85.0	24.654
85.5	21.051
86.0	17.478
86.5	14.068
87.0	11.042
87.5	8.582
88.0	6.447
88.5	4.554
89.0	2.874
89.5	1.609
90.0	0.820
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
119.0	0.000
119.5	0.000
120.0	0.000
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121.0	0.000
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122.0	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
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161.0	0.000
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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	250.24	N.A.	18.70
0-30	480.74	N.A.	35.80
0-40	706.47	N.A.	52.70
0-60	1079.92	N.A.	80.50
0-80	1312.45	N.A.	97.90
0-90	1340.97	N.A.	100.00
10-90	1271.61	N.A.	94.80
20-40	456.23	N.A.	34.00
20-50	657.37	N.A.	49.00
40-70	512.22	N.A.	38.20
60-80	232.54	N.A.	17.30
70-80	93.77	N.A.	7.00
80-90	28.51	N.A.	2.10
90-110	0.02	N.A.	0.00
90-120	0.02	N.A.	0.00
90-130	0.02	N.A.	0.00
90-150	0.02	N.A.	0.00
90-180	0.02	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	1340.99	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	69.35
10-20	180.89
20-30	230.50
30-40	225.72
40-50	201.15
50-60	172.31
60-70	138.77
70-80	93.77
80-90	28.51
90-100	0.02
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	109	105	100	97	106	102	99	95	98	95	92	94	92	89	91	89	87	85
2	100	92	86	80	97	90	84	79	87	82	77	83	79	76	80	77	74	72
3	92	82	74	68	89	80	73	67	77	71	66	75	69	65	72	68	64	62
4	85	73	65	59	82	72	64	58	70	63	57	67	61	57	65	60	56	54
5	78	66	58	51	76	65	57	51	63	56	51	61	55	50	59	54	50	48
6	73	60	52	46	71	59	51	46	58	50	45	56	50	45	54	49	44	42
7	68	55	47	41	66	54	47	41	53	46	41	52	45	40	50	45	40	38
8	64	51	43	37	62	50	43	37	49	42	37	48	41	37	47	41	37	35
9	60	47	39	34	59	47	39	34	45	39	34	44	38	34	43	38	33	32
10	56	44	36	31	55	43	36	31	42	36	31	41	35	31	41	35	31	29

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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	21.4	22.9	21.7	23.2	23.5	21.4	22.9	21.7	23.2	23.5
	3H	23.5	24.9	23.9	25.2	25.6	23.5	24.9	23.9	25.2	25.6
	4H	24.4	25.7	24.8	26.1	26.4	24.4	25.7	24.8	26.1	26.4
	6H	25.1	26.4	25.5	26.7	27.1	25.1	26.4	25.5	26.7	27.1
	8H	25.4	26.6	25.8	27.0	27.4	25.4	26.6	25.8	27.0	27.4
	12H	25.6	26.7	26.0	27.1	27.5	25.6	26.7	26.0	27.1	27.5

UGR Viewed Endwise

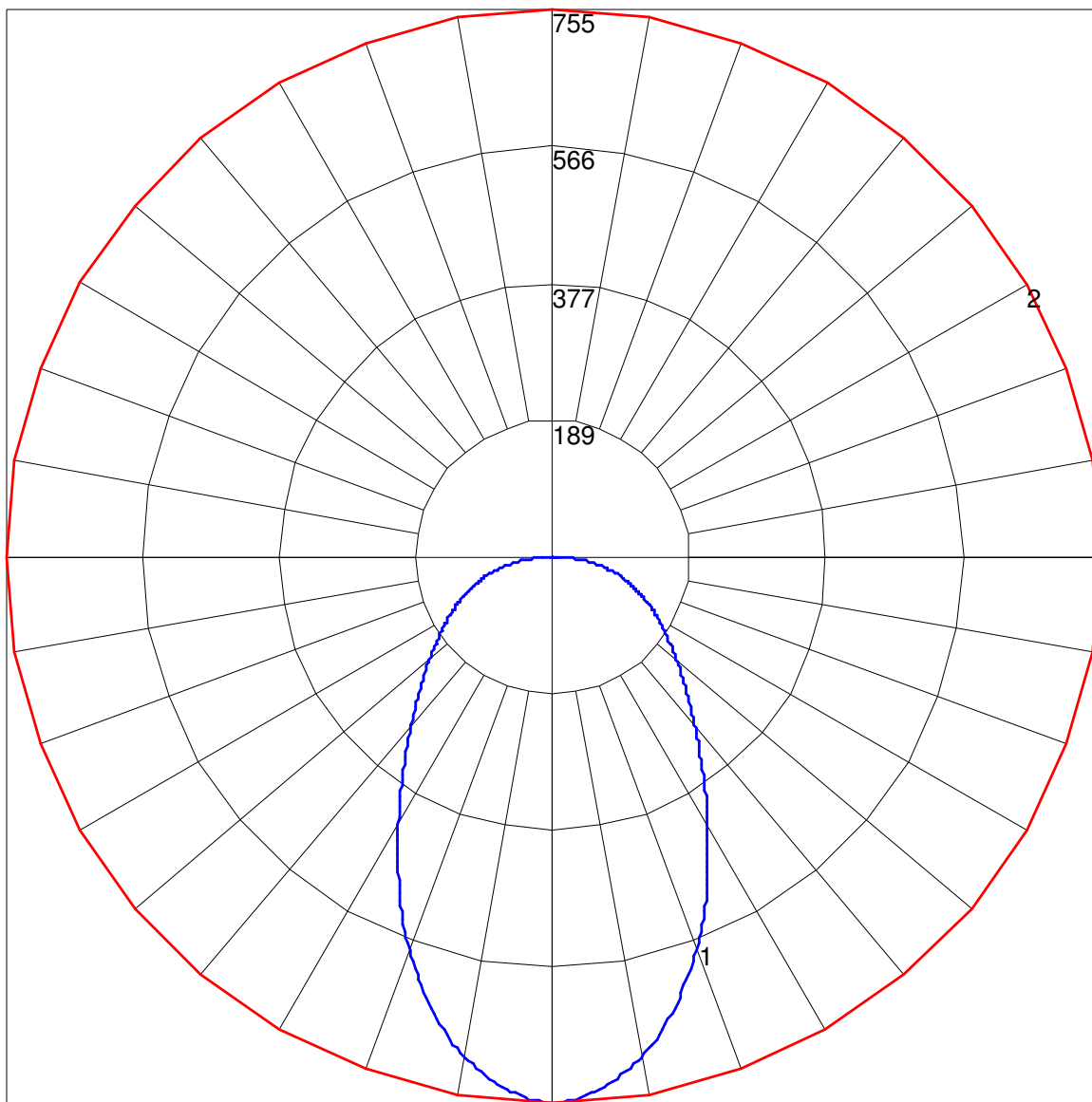
4H	2H	22.1	23.4	22.4	23.7	24.1	22.1	23.4	22.4	23.7	24.1
	3H	24.4	25.5	24.8	25.9	26.3	24.4	25.5	24.8	25.9	26.3
	4H	25.5	26.5	25.9	26.9	27.3	25.5	26.5	25.9	26.9	27.3
	6H	26.4	27.3	26.8	27.7	28.2	26.4	27.3	26.8	27.7	28.2
	8H	26.7	27.5	27.2	28.0	28.4	26.7	27.5	27.2	28.0	28.4
	12H	26.9	27.7	27.4	28.1	28.6	26.9	27.7	27.4	28.1	28.6

8H	4H	25.9	26.7	26.4	27.2	27.6	25.9	26.7	26.4	27.2	27.6
	6H	27.0	27.6	27.5	28.1	28.6	27.0	27.6	27.5	28.1	28.6
	8H	27.4	28.0	27.9	28.5	29.0	27.4	28.0	27.9	28.5	29.0
	12H	27.7	28.2	28.2	28.7	29.3	27.7	28.2	28.2	28.7	29.3

12H	4H	26.0	26.7	26.4	27.2	27.6	26.0	26.7	26.4	27.2	27.6
	6H	27.1	27.7	27.6	28.1	28.7	27.1	27.7	27.6	28.1	28.7
	8H	27.5	28.1	28.0	28.6	29.1	27.5	28.1	28.0	28.6	29.1

Maximum UGR = 29.3

POLAR GRAPH



Maximum Candela = 754.793 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.)