



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 6DR-TL-P16-840-POE PR-LW-OF-WH_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] GEN FROM 12326812.07
 [TESTLAB] UL Verification Services Inc.
 [ISSUEDATE] 02/14/2022
 [MANUFAC] WILLIAMS INDOOR
 [OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO.
 [LUMCAT] 6DR-TL-P16-840-POE PR-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	1626
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	132
Total Luminaire Watts	12.3
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	27038	27038	27038
55	22510	22510	22510
65	17101	17101	17101
75	12402	12402	12402
85	8082	8082	8082

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CANDELA TABULATION

	<u>0</u>
0.0	1034.634
0.5	1034.426
1.0	1033.593
1.5	1032.343
2.0	1030.780
2.5	1028.697
3.0	1026.614
3.5	1024.218
4.0	1022.031
4.5	1019.843
5.0	1018.281
5.5	1016.823
6.0	1015.468
6.5	1014.114
7.0	1012.656
7.5	1011.302
8.0	1009.948
8.5	1008.698
9.0	1007.448
9.5	1006.406
10.0	1005.365
10.5	1004.532
11.0	1003.802
11.5	1003.386
12.0	1002.657
12.5	1001.928
13.0	1000.886
13.5	999.532
14.0	997.865
14.5	995.990
15.0	994.011
15.5	991.511
16.0	988.803
16.5	986.095
17.0	983.387
17.5	980.574
18.0	977.554
18.5	974.116
19.0	970.262
19.5	965.992
20.0	961.096
20.5	955.784
21.0	949.222
21.5	941.410
22.0	932.556
22.5	922.557
23.0	911.620
23.5	899.745
24.0	886.621
24.5	872.455
25.0	857.143
25.5	841.207
26.0	824.228
26.5	806.521

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CANDELA TABULATION - (Cont.)

27.0	787.668
27.5	768.294
28.0	747.878
28.5	726.317
29.0	703.922
29.5	680.382
30.0	656.216
30.5	631.322
31.0	606.427
31.5	581.324
32.0	556.950
32.5	533.618
33.0	511.224
33.5	490.287
34.0	471.017
34.5	453.518
35.0	437.894
35.5	423.520
36.0	410.916
36.5	399.354
37.0	389.042
37.5	379.772
38.0	371.335
38.5	363.627
39.0	356.336
39.5	349.774
40.0	343.420
40.5	337.483
41.0	331.962
41.5	326.546
42.0	321.338
42.5	316.546
43.0	311.651
43.5	306.859
44.0	302.172
44.5	297.589
45.0	292.902
45.5	288.423
46.0	283.840
46.5	279.256
47.0	274.569
47.5	269.986
48.0	265.299
48.5	260.612
49.0	255.924
49.5	251.029
50.0	246.341
50.5	241.550
51.0	236.759
51.5	231.863
52.0	226.967
52.5	222.072
53.0	217.176
53.5	212.281
54.0	207.593
54.5	202.802

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CANDELA TABULATION - (Cont.)

55.0	197.802
55.5	192.907
56.0	188.011
56.5	183.428
57.0	178.845
57.5	174.054
58.0	169.262
58.5	164.575
59.0	159.992
59.5	155.409
60.0	151.034
60.5	146.659
61.0	142.388
61.5	138.118
62.0	134.056
62.5	129.993
63.0	126.035
63.5	122.077
64.0	118.223
64.5	114.473
65.0	110.723
65.5	107.078
66.0	103.443
66.5	99.870
67.0	96.339
67.5	92.881
68.0	89.485
68.5	86.079
69.0	82.777
69.5	79.506
70.0	76.329
70.5	73.257
71.0	70.246
71.5	67.330
72.0	64.518
72.5	61.788
73.0	59.132
73.5	56.528
74.0	54.028
74.5	51.581
75.0	49.175
75.5	46.852
76.0	44.571
76.5	42.331
77.0	40.154
77.5	38.019
78.0	35.946
78.5	33.915
79.0	31.925
79.5	30.009
80.0	28.103
80.5	26.259
81.0	24.436
81.5	22.624
82.0	20.853
82.5	19.093

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PHOTOMETRIC FILENAME : 6DR-TL-P16-840-POE PR-LW-OF-WH_.IES

CANDELA TABULATION - (Cont.)

83.0	17.374
83.5	15.687
84.0	14.020
84.5	12.385
85.0	10.791
85.5	9.250
86.0	7.760
86.5	6.323
87.0	4.927
87.5	3.760
88.0	2.875
88.5	2.104
89.0	1.458
89.5	0.917
90.0	0.583
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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PHOTOMETRIC FILENAME : 6DR-TL-P16-840-POE PR-LW-OF-WH_.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
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117.5	0.000
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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-P16-840-POE PR-LW-OF-WH_.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
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145.0	0.000
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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-P16-840-POE PR-LW-OF-WH_.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

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	376.88	N.A.	23.20
0-30	761.83	N.A.	46.80
0-40	1047.28	N.A.	64.40
0-60	1450.32	N.A.	89.20
0-80	1613.58	N.A.	99.20
0-90	1626.48	N.A.	100.00
10-90	1529.66	N.A.	94.00
20-40	670.40	N.A.	41.20
20-50	896.58	N.A.	55.10
40-70	513.41	N.A.	31.60
60-80	163.25	N.A.	10.00
70-80	52.88	N.A.	3.30
80-90	12.90	N.A.	0.80
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	1626.49	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	96.82
10-20	280.06
20-30	384.95
30-40	285.45
40-50	226.19
50-60	176.85
60-70	110.37
70-80	52.88
80-90	12.90
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	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	80	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	58	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	65	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	20.7	22.1	21.1	22.4	22.7	20.7	22.1	21.1	22.4	22.7
	3H	21.9	23.2	22.3	23.5	23.8	21.9	23.2	22.3	23.5	23.8
	4H	22.3	23.5	22.7	23.8	24.2	22.3	23.5	22.7	23.8	24.2
	6H	22.6	23.6	23.0	24.0	24.4	22.6	23.6	23.0	24.0	24.4
	8H	22.6	23.7	23.1	24.1	24.5	22.6	23.7	23.1	24.1	24.5
	12H	22.7	23.6	23.1	24.0	24.5	22.7	23.6	23.1	24.0	24.5

UGR Viewed Endwise

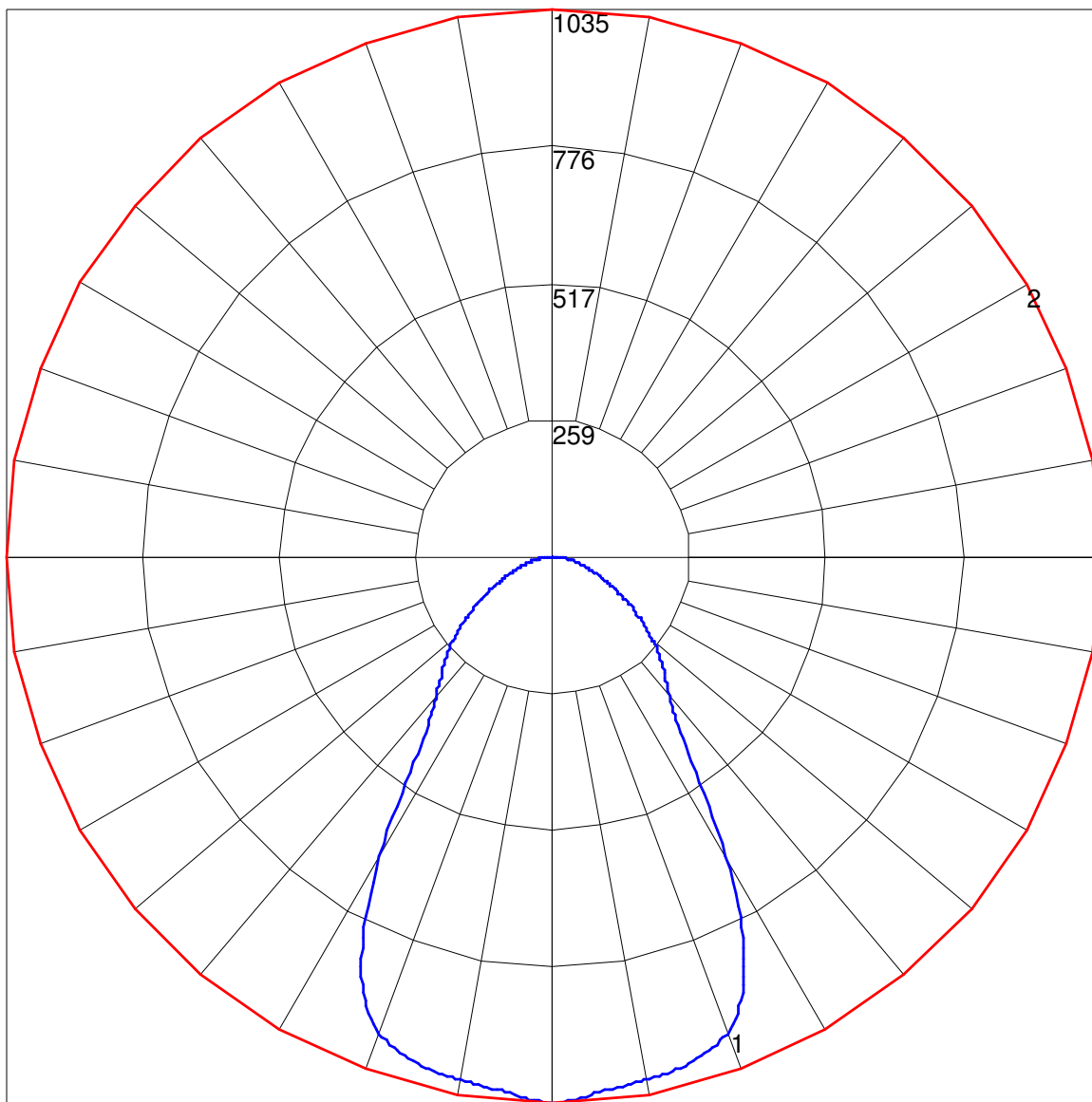
4H	2H	21.1	22.3	21.5	22.6	23.0	21.1	22.3	21.5	22.6	23.0
	3H	22.5	23.5	22.9	23.9	24.3	22.5	23.5	22.9	23.9	24.3
	4H	23.0	23.9	23.4	24.3	24.7	23.0	23.9	23.4	24.3	24.7
	6H	23.4	24.1	23.9	24.6	25.0	23.4	24.1	23.9	24.6	25.0
	8H	23.5	24.2	23.9	24.6	25.1	23.5	24.2	23.9	24.6	25.1
	12H	23.6	24.2	24.0	24.7	25.1	23.6	24.2	24.0	24.7	25.1

8H	4H	23.2	23.9	23.6	24.3	24.8	23.2	23.9	23.6	24.3	24.8
	6H	23.6	24.2	24.1	24.7	25.2	23.6	24.2	24.1	24.7	25.2
	8H	23.8	24.3	24.3	24.8	25.3	23.8	24.3	24.3	24.8	25.3
	12H	23.9	24.4	24.4	24.9	25.4	23.9	24.4	24.4	24.9	25.4

12H	4H	23.2	23.8	23.6	24.3	24.7	23.2	23.8	23.6	24.3	24.7
	6H	23.7	24.2	24.2	24.6	25.2	23.7	24.2	24.2	24.6	25.2
	8H	23.9	24.3	24.4	24.8	25.4	23.9	24.3	24.4	24.8	25.4

Maximum UGR = 25.4

POLAR GRAPH



Maximum Candela = 1034.634 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.)