



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 6DR-TL-P16-835-POE PR-SW-OF-WH_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] GEN FROM 12326812.07
 [TESTLAB] UL Verification Services Inc.
 [ISSUEDATE] 16 DEC 2020
 [MANUFAC] WILLIAMS INDOOR
 [OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO.
 [LUMCAT] 6DR-TL-P16-835-POE PR-SW-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	1142
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	93
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	18978	18978	18978
55	15800	15800	15800
65	12004	12004	12004
75	8705	8705	8705
85	5672	5672	5672

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CANDELA TABULATION

	<u>0</u>
0.0	726.215
0.5	726.069
1.0	725.484
1.5	724.607
2.0	723.510
2.5	722.048
3.0	720.586
3.5	718.904
4.0	717.369
4.5	715.834
5.0	714.737
5.5	713.713
6.0	712.763
6.5	711.813
7.0	710.789
7.5	709.838
8.0	708.888
8.5	708.011
9.0	707.133
9.5	706.402
10.0	705.671
10.5	705.086
11.0	704.574
11.5	704.282
12.0	703.770
12.5	703.258
13.0	702.527
13.5	701.577
14.0	700.407
14.5	699.091
15.0	697.702
15.5	695.947
16.0	694.046
16.5	692.146
17.0	690.245
17.5	688.271
18.0	686.150
18.5	683.738
19.0	681.033
19.5	678.035
20.0	674.599
20.5	670.870
21.0	666.264
21.5	660.781
22.0	654.566
22.5	647.548
23.0	639.871
23.5	631.536
24.0	622.324
24.5	612.381
25.0	601.634
25.5	590.448
26.0	578.530
26.5	566.102

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CANDELA TABULATION - (Cont.)

27.0	552.868
27.5	539.270
28.0	524.940
28.5	509.806
29.0	494.087
29.5	477.564
30.0	460.602
30.5	443.128
31.0	425.655
31.5	408.035
32.0	390.927
32.5	374.550
33.0	358.831
33.5	344.135
34.0	330.610
34.5	318.327
35.0	307.360
35.5	297.271
36.0	288.424
36.5	280.309
37.0	273.071
37.5	266.564
38.0	260.642
38.5	255.232
39.0	250.114
39.5	245.508
40.0	241.048
40.5	236.881
41.0	233.006
41.5	229.204
42.0	225.549
42.5	222.186
43.0	218.749
43.5	215.386
44.0	212.096
44.5	208.879
45.0	205.589
45.5	202.445
46.0	199.229
46.5	196.012
47.0	192.722
47.5	189.505
48.0	186.215
48.5	182.925
49.0	179.635
49.5	176.198
50.0	172.908
50.5	169.545
51.0	166.182
51.5	162.746
52.0	159.310
52.5	155.873
53.0	152.437
53.5	149.001
54.0	145.711
54.5	142.348

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CANDELA TABULATION - (Cont.)

55.0	138.839
55.5	135.402
56.0	131.966
56.5	128.749
57.0	125.532
57.5	122.169
58.0	118.806
58.5	115.516
59.0	112.299
59.5	109.082
60.0	106.012
60.5	102.941
61.0	99.943
61.5	96.946
62.0	94.094
62.5	91.243
63.0	88.465
63.5	85.687
64.0	82.981
64.5	80.349
65.0	77.717
65.5	75.159
66.0	72.607
66.5	70.099
67.0	67.621
67.5	65.193
68.0	62.810
68.5	60.419
69.0	58.102
69.5	55.806
70.0	53.576
70.5	51.419
71.0	49.306
71.5	47.259
72.0	45.285
72.5	43.370
73.0	41.505
73.5	39.678
74.0	37.923
74.5	36.205
75.0	34.516
75.5	32.886
76.0	31.284
76.5	29.712
77.0	28.184
77.5	26.686
78.0	25.231
78.5	23.805
79.0	22.409
79.5	21.063
80.0	19.725
80.5	18.431
81.0	17.152
81.5	15.880
82.0	14.637
82.5	13.401

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CANDELA TABULATION - (Cont.)

83.0	12.195
83.5	11.011
84.0	9.841
84.5	8.693
85.0	7.574
85.5	6.492
86.0	5.447
86.5	4.438
87.0	3.458
87.5	2.639
88.0	2.018
88.5	1.477
89.0	1.024
89.5	0.643
90.0	0.409
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
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122.0	0.000
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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

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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
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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	264.54	N.A.	23.20
0-30	534.74	N.A.	46.80
0-40	735.09	N.A.	64.40
0-60	1017.99	N.A.	89.20
0-80	1132.58	N.A.	99.20
0-90	1141.63	N.A.	100.00
10-90	1073.67	N.A.	94.00
20-40	470.55	N.A.	41.20
20-50	629.32	N.A.	55.10
40-70	360.37	N.A.	31.60
60-80	114.59	N.A.	10.00
70-80	37.12	N.A.	3.30
80-90	9.05	N.A.	0.80
90-110	0.01	N.A.	0.00
90-120	0.01	N.A.	0.00
90-130	0.01	N.A.	0.00
90-150	0.01	N.A.	0.00
90-180	0.01	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	1141.64	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	67.96
10-20	196.58
20-30	270.20
30-40	200.36
40-50	158.76
50-60	124.14
60-70	77.47
70-80	37.12
80-90	9.05
90-100	0.01
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	100	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	77	74	70	69
4	89	79	71	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	51	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	19.5	20.9	19.9	21.2	21.5	19.5	20.9	19.9	21.2	21.5
	3H	20.7	22.0	21.1	22.3	22.6	20.7	22.0	21.1	22.3	22.6
	4H	21.1	22.3	21.5	22.6	23.0	21.1	22.3	21.5	22.6	23.0
	6H	21.4	22.4	21.8	22.8	23.2	21.4	22.4	21.8	22.8	23.2
	8H	21.4	22.5	21.9	22.9	23.3	21.4	22.5	21.9	22.9	23.3
	12H	21.5	22.5	21.9	22.8	23.3	21.5	22.5	21.9	22.8	23.3

UGR Viewed Endwise

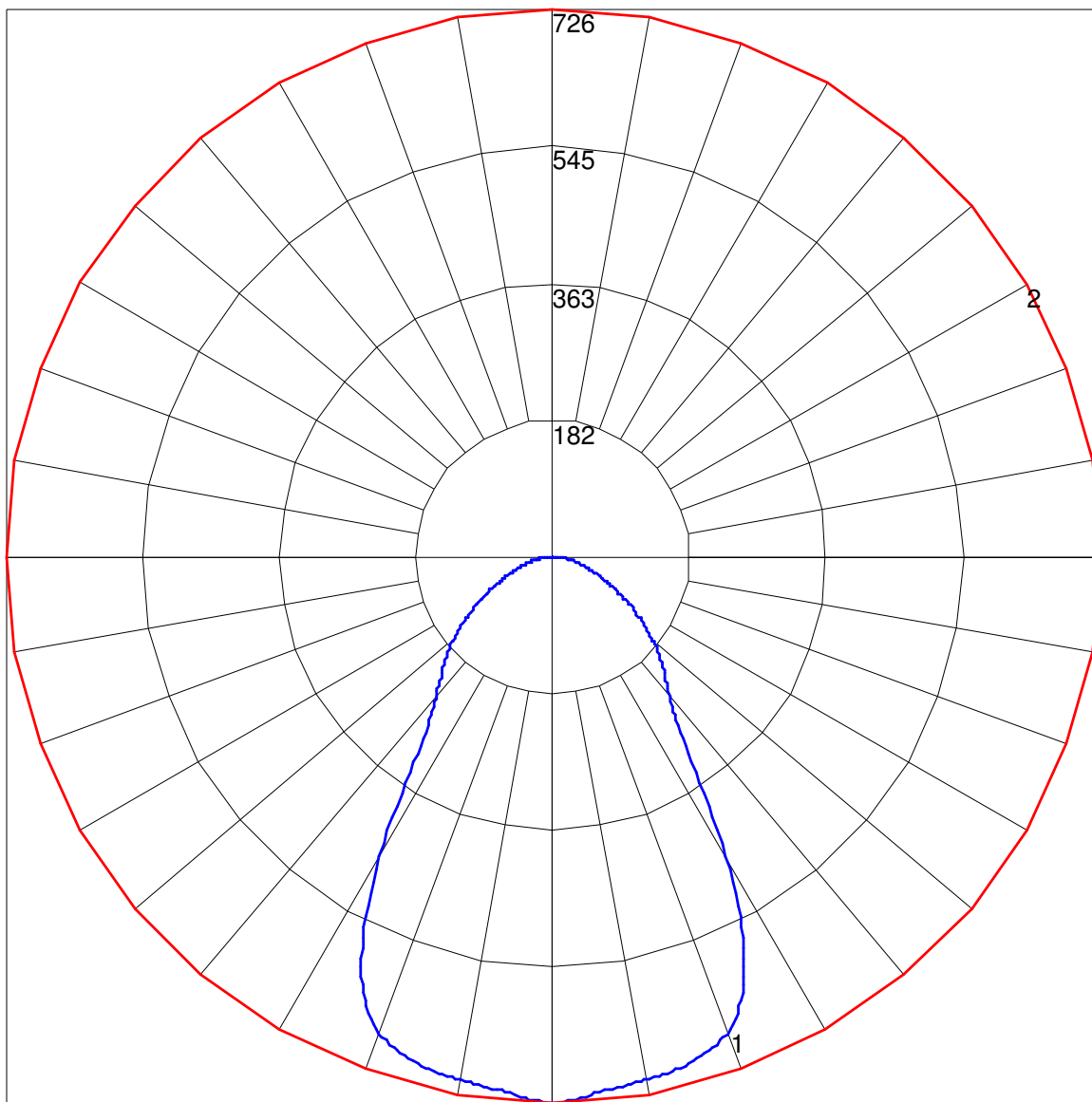
4H	2H	19.9	21.1	20.3	21.4	21.8	19.9	21.1	20.3	21.4	21.8
	3H	21.3	22.3	21.7	22.7	23.1	21.3	22.3	21.7	22.7	23.1
	4H	21.8	22.7	22.2	23.1	23.5	21.8	22.7	22.2	23.1	23.5
	6H	22.2	22.9	22.7	23.4	23.8	22.2	22.9	22.7	23.4	23.8
	8H	22.3	23.0	22.7	23.4	23.9	22.3	23.0	22.7	23.4	23.9
	12H	22.4	23.0	22.8	23.5	23.9	22.4	23.0	22.8	23.5	23.9

8H	4H	22.0	22.7	22.4	23.1	23.6	22.0	22.7	22.4	23.1	23.6
	6H	22.4	23.0	22.9	23.5	24.0	22.4	23.0	22.9	23.5	24.0
	8H	22.6	23.1	23.1	23.6	24.1	22.6	23.1	23.1	23.6	24.1
	12H	22.7	23.2	23.2	23.7	24.2	22.7	23.2	23.2	23.7	24.2

12H	4H	22.0	22.6	22.4	23.1	23.5	22.0	22.6	22.4	23.1	23.5
	6H	22.5	23.0	23.0	23.4	24.0	22.5	23.0	23.0	23.4	24.0
	8H	22.7	23.1	23.2	23.6	24.2	22.7	23.1	23.2	23.6	24.2

Maximum UGR = 24.2

POLAR GRAPH



Maximum Candela = 726.215 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.)