



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 4DR-TL-P15-835-POE PR-SW-OF-WH_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] GEN FROM 12316380.07
 [TESTLAB] UL Verification Services Inc.
 [ISSUEDATE] 12-16-2021
 [MANUFAC] WILLIAMS INDOOR
 [OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO.
 [LUMCAT] 4DR-TL-P15-835-POE PR-SW-OF-WH
 [LUMINAIRE] Black formed aluminum housing, white reflector, clear patterned glass lens enclosure
 [MORE] One white LED
 [LAMP] One white LED
 [SEARCH_SOURCETYPE] LED
 [SEARCH_APPLICATION] Indoor, Classroom, Commercial, Corridor, Hotel, Industrial, Office, Downlight
 [SEARCH_MOUNTING] Recessed

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	1016
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	83
Total Luminaire Watts	12.3
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.00
Spacing Criterion (90-270)	1.00
Spacing Criterion (Diagonal)	0.90
Basic Luminous Shape	Circular
Luminous Length (0-180)	0.35 ft (Diameter)
Luminous Width (90-270)	0.35 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	28031	28031	28031
55	23033	23033	23033
65	16850	16850	16850
75	11665	11665	11665
85	6358	6358	6358

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 4DR-TL-P15-835-POE PR-SW-OFF-WH_.IES

CANDELA TABULATION

	<u>0</u>
0.0	713.530
0.5	713.304
1.0	712.853
1.5	712.252
2.0	711.651
2.5	710.975
3.0	710.073
3.5	709.547
4.0	709.171
4.5	708.946
5.0	708.645
5.5	708.344
6.0	708.119
6.5	707.818
7.0	707.593
7.5	707.443
8.0	707.367
8.5	707.142
9.0	706.917
9.5	706.466
10.0	706.165
10.5	705.639
11.0	705.113
11.5	704.437
12.0	703.685
12.5	702.783
13.0	701.731
13.5	700.529
14.0	699.026
14.5	697.223
15.0	695.043
15.5	692.413
16.0	689.482
16.5	686.025
17.0	682.268
17.5	678.060
18.0	673.100
18.5	667.990
19.0	662.429
19.5	656.192
20.0	649.353
20.5	641.914
21.0	633.873
21.5	625.231
22.0	615.687
22.5	605.542
23.0	594.646
23.5	582.923
24.0	570.298
24.5	556.846
25.0	542.267
25.5	527.012
26.0	510.705
26.5	493.421

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 4DR-TL-P15-835-POE PR-SW-OF-WH_.IES

CANDELA TABULATION - (Cont.)

27.0	475.536
27.5	456.899
28.0	437.962
28.5	418.950
29.0	400.313
29.5	382.052
30.0	364.467
30.5	347.935
31.0	332.454
31.5	318.327
32.0	305.476
32.5	293.904
33.0	283.608
33.5	274.440
34.0	266.249
34.5	259.035
35.0	252.497
35.5	246.560
36.0	241.300
36.5	236.340
37.0	231.831
37.5	227.623
38.0	223.715
38.5	219.958
39.0	216.501
39.5	213.120
40.0	209.963
40.5	206.807
41.0	203.801
41.5	200.870
42.0	198.090
42.5	195.309
43.0	192.529
43.5	189.749
44.0	186.968
44.5	184.188
45.0	181.407
45.5	178.627
46.0	175.846
46.5	173.066
47.0	170.135
47.5	167.204
48.0	164.273
48.5	161.267
49.0	158.186
49.5	155.105
50.0	152.099
50.5	149.018
51.0	145.937
51.5	142.856
52.0	139.850
52.5	136.844
53.0	133.763
53.5	130.607
54.0	127.376
54.5	124.144

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 4DR-TL-P15-835-POE PR-SW-OF-WH_.IES

CANDELA TABULATION - (Cont.)

55.0	120.913
55.5	117.682
56.0	114.525
56.5	111.444
57.0	108.363
57.5	105.282
58.0	102.276
58.5	99.346
59.0	96.415
59.5	93.559
60.0	90.779
60.5	87.998
61.0	85.293
61.5	82.663
62.0	80.033
62.5	77.402
63.0	74.892
63.5	72.398
64.0	69.948
64.5	67.535
65.0	65.176
65.5	62.876
66.0	60.607
66.5	58.397
67.0	56.241
67.5	54.122
68.0	52.070
68.5	50.064
69.0	48.057
69.5	46.118
70.0	44.232
70.5	42.376
71.0	40.565
71.5	38.799
72.0	37.093
72.5	35.410
73.0	33.771
73.5	32.178
74.0	30.615
74.5	29.105
75.0	27.632
75.5	26.204
76.0	24.806
76.5	23.446
77.0	22.146
77.5	20.854
78.0	19.606
78.5	18.396
79.0	17.209
79.5	16.067
80.0	14.947
80.5	13.857
81.0	12.783
81.5	11.738
82.0	10.716
82.5	9.724

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 4DR-TL-P15-835-POE PR-SW-OF-WH_.IES

CANDELA TABULATION - (Cont.)

83.0	8.740
83.5	7.785
84.0	6.853
84.5	5.944
85.0	5.072
85.5	4.231
86.0	3.427
86.5	2.668
87.0	1.999
87.5	1.443
88.0	1.007
88.5	0.639
89.0	0.398
89.5	0.271
90.0	0.188
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 : 4DR-TL-P15-835-POE PR-SW-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
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 : 4DR-TL-P15-835-POE PR-SW-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
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 : 4DR-TL-P15-835-POE PR-SW-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

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 4DR-TL-P15-835-POE PR-SW-OF-WH_.IES

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	262.09	N.A.	25.80
0-30	502.72	N.A.	49.50
0-40	666.63	N.A.	65.60
0-60	914.40	N.A.	90.00
0-80	1009.38	N.A.	99.40
0-90	1015.74	N.A.	100.00
10-90	948.15	N.A.	93.30
20-40	404.54	N.A.	39.80
20-50	544.25	N.A.	53.60
40-70	312.94	N.A.	30.80
60-80	94.98	N.A.	9.40
70-80	29.81	N.A.	2.90
80-90	6.35	N.A.	0.60
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	1015.74	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	67.58
10-20	194.51
20-30	240.63
30-40	163.91
40-50	139.71
50-60	108.06
60-70	65.17
70-80	29.81
80-90	6.35
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

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 4DR-TL-P15-835-POE PR-SW-OF-WH_.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	111	107	104	101	109	105	102	99	101	99	96	97	95	93	94	92	91	89
2	103	97	91	87	101	95	90	86	92	87	84	89	85	82	86	83	80	78
3	96	88	81	76	94	86	80	75	83	78	74	81	76	73	78	75	72	70
4	90	80	73	67	88	79	72	67	76	70	66	74	69	65	72	68	64	62
5	84	73	66	60	82	72	65	60	70	64	59	68	63	59	67	62	58	56
6	79	67	60	54	77	66	59	54	65	58	54	63	58	53	62	57	53	51
7	74	62	55	50	72	62	54	49	60	54	49	59	53	49	58	52	49	47
8	69	58	51	46	68	57	50	45	56	50	45	55	49	45	54	49	45	43
9	66	54	47	42	64	53	47	42	52	46	42	51	46	42	50	45	41	40
10	62	51	44	39	61	50	43	39	49	43	39	48	43	39	47	42	39	37

IES INDOOR REPORT

PHOTOMETRIC FILENAME : 4DR-TL-P15-835-POE PR-SW-OF-WH_.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

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	21.8	23.0	22.2	23.4	23.7	21.8	23.0	22.2	23.4	23.7
	4H	22.2	23.3	22.6	23.7	24.0	22.2	23.3	22.6	23.7	24.0
	6H	22.4	23.4	22.8	23.8	24.2	22.4	23.4	22.8	23.8	24.2
	8H	22.4	23.4	22.9	23.8	24.2	22.4	23.4	22.9	23.8	24.2
	12H	22.4	23.4	22.9	23.8	24.2	22.4	23.4	22.9	23.8	24.2

UGR Viewed Endwise

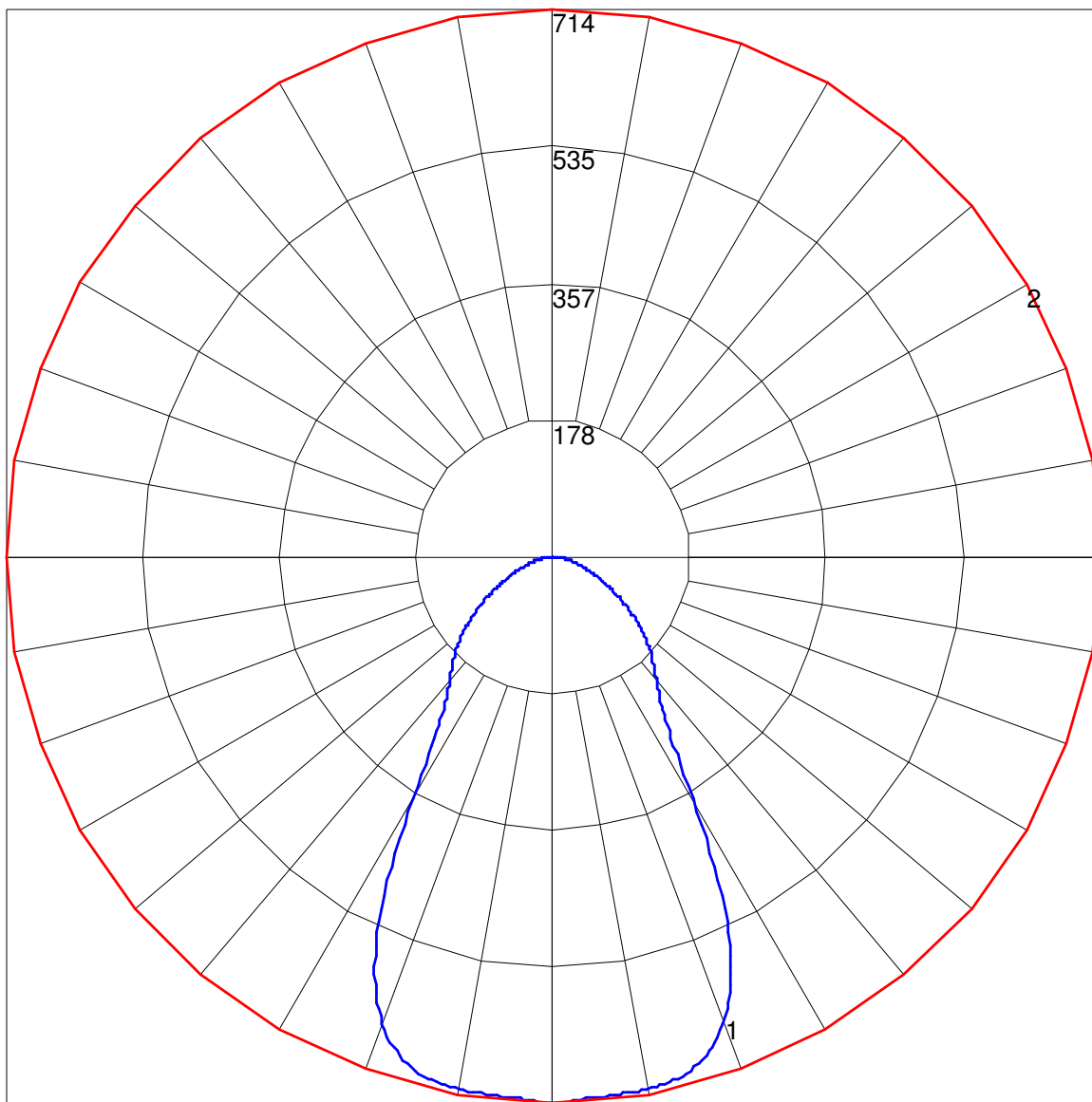
4H	2H	21.1	22.2	21.5	22.6	22.9	21.1	22.2	21.5	22.6	22.9
	3H	22.4	23.3	22.8	23.7	24.1	22.4	23.3	22.8	23.7	24.1
	4H	22.8	23.7	23.2	24.1	24.5	22.8	23.7	23.2	24.1	24.5
	6H	23.1	23.9	23.6	24.3	24.8	23.1	23.9	23.6	24.3	24.8
	8H	23.2	23.9	23.7	24.3	24.8	23.2	23.9	23.7	24.3	24.8
	12H	23.2	23.8	23.7	24.3	24.8	23.2	23.8	23.7	24.3	24.8

8H	4H	22.9	23.6	23.4	24.1	24.5	22.9	23.6	23.4	24.1	24.5
	6H	23.3	23.9	23.8	24.4	24.9	23.3	23.9	23.8	24.4	24.9
	8H	23.4	23.9	24.0	24.5	24.9	23.4	23.9	24.0	24.5	24.9
	12H	23.5	24.0	24.0	24.4	25.0	23.5	24.0	24.0	24.4	25.0

12H	4H	22.9	23.5	23.4	24.0	24.5	22.9	23.5	23.4	24.0	24.5
	6H	23.3	23.8	23.9	24.3	24.8	23.3	23.8	23.9	24.3	24.8
	8H	23.5	23.9	24.0	24.4	25.0	23.5	23.9	24.0	24.4	25.0

Maximum UGR = 25.0

POLAR GRAPH



Maximum Candela = 713.53 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.)