

## IES INDOOR REPORT

PHOTOMETRIC FILENAME : 6DR-TL-L20-935-DIM-UNV-OW-OF-BL (BLACK)\_.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN FROM 12326812.01

[TESTLAB] UL Verification Services Inc.

[ISSUE DATE] 6-16-2023

[MANUFAC] WILLIAMS INDOOR

[OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO.

[LUMCAT] 6DR-L20-935-DIM-UNV-OW-OF-BL (BLACK)

[LUMINAIRE] Black formed aluminum housing, specular reflector, no lens

[MORE] enclosure

[LAMP] One white LED

[OTHER] This test was performed using the calibrated photodetector met

[MORE] hod of absolute photometry.

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	766
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	40
Total Luminaire Watts	19.1781
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.08
Spacing Criterion (90-270)	1.08
Spacing Criterion (Diagonal)	0.94
Basic Luminous Shape	Circular
Luminous Length (0-180)	0.50 ft (Diameter)
Luminous Width (90-270)	0.50 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	1963	1963	1963
55	958	958	958
65	365	365	365
75	147	147	147
85	97	97	97

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : 6DR-TL-L20-935-DIM-UNV-OW-OF-BL (BLACK)\_.IES****CANDELA TABULATION**

	<u>0</u>
0.0	932.836
0.5	927.049
1.0	912.775
1.5	891.556
2.0	864.165
2.5	835.617
3.0	806.683
3.5	778.135
4.0	746.500
4.5	717.180
5.0	697.119
5.5	681.688
6.0	670.500
6.5	663.170
7.0	658.540
7.5	656.997
8.0	657.383
8.5	658.540
9.0	661.627
9.5	664.713
10.0	668.571
10.5	672.043
11.0	674.743
11.5	676.287
12.0	675.515
12.5	673.200
13.0	668.957
13.5	663.941
14.0	658.155
14.5	653.525
15.0	649.281
15.5	645.038
16.0	642.337
16.5	641.180
17.0	641.951
17.5	643.109
18.0	645.038
18.5	646.967
19.0	648.510
19.5	650.053
20.0	650.439
20.5	650.825
21.0	651.596
21.5	652.368
22.0	653.525
22.5	655.068
23.0	657.383
23.5	660.469
24.0	663.941
24.5	667.799
25.0	671.657
25.5	675.515
26.0	679.373
26.5	683.231

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : 6DR-TL-L20-935-DIM-UNV-OW-OF-BL (BLACK)\_.IES****CANDELA TABULATION - (Cont.)**

27.0	686.317
27.5	687.860
28.0	686.703
28.5	683.231
29.0	677.830
29.5	670.114
30.0	656.226
30.5	634.621
31.0	604.530
31.5	568.266
32.0	526.987
32.5	481.849
33.0	432.854
33.5	380.464
34.0	328.691
34.5	279.465
35.0	234.212
35.5	193.434
36.0	156.823
36.5	127.310
37.0	104.934
37.5	89.464
38.0	76.579
38.5	64.697
39.0	55.129
39.5	48.185
40.0	43.285
40.5	39.929
41.0	37.344
41.5	35.222
42.0	33.371
42.5	31.712
43.0	30.207
43.5	28.857
44.0	27.584
44.5	26.426
45.0	25.346
45.5	24.305
46.0	23.340
46.5	22.414
47.0	21.527
47.5	20.678
48.0	19.868
48.5	19.058
49.0	18.286
49.5	17.553
50.0	16.782
50.5	16.049
51.0	15.316
51.5	14.583
52.0	13.927
52.5	13.194
53.0	12.538
53.5	11.882
54.0	11.265
54.5	10.609

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55.0	10.030
55.5	9.490
56.0	8.950
56.5	8.372
57.0	7.909
57.5	7.446
58.0	6.983
58.5	6.558
59.0	6.173
59.5	5.787
60.0	5.440
60.5	5.092
61.0	4.784
61.5	4.475
62.0	4.205
62.5	3.896
63.0	3.665
63.5	3.434
64.0	3.202
64.5	3.009
65.0	2.816
65.5	2.623
66.0	2.430
66.5	2.276
67.0	2.122
67.5	1.968
68.0	1.852
68.5	1.697
69.0	1.582
69.5	1.466
70.0	1.389
70.5	1.273
71.0	1.196
71.5	1.119
72.0	1.042
72.5	0.964
73.0	0.887
73.5	0.810
74.0	0.772
74.5	0.733
75.0	0.694
75.5	0.617
76.0	0.540
76.5	0.540
77.0	0.502
77.5	0.463
78.0	0.424
78.5	0.386
79.0	0.347
79.5	0.347
80.0	0.309
80.5	0.309
81.0	0.270
81.5	0.270
82.0	0.231
82.5	0.193

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83.0	0.193
83.5	0.193
84.0	0.154
84.5	0.154
85.0	0.154
85.5	0.154
86.0	0.116
86.5	0.116
87.0	0.116
87.5	0.077
88.0	0.116
88.5	0.077
89.0	0.077
89.5	0.077
90.0	0.077
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 : 6DR-TL-L20-935-DIM-UNV-OW-OF-BL (BLACK)\_.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 : 6DR-TL-L20-935-DIM-UNV-OW-OF-BL (BLACK)\_.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 : 6DR-TL-L20-935-DIM-UNV-OW-OF-BL (BLACK)\_.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 : 6DR-TL-L20-935-DIM-UNV-OW-OF-BL (BLACK)\_.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	251.85	N.A.	32.90
0-30	561.76	N.A.	73.30
0-40	732.86	N.A.	95.60
0-60	762.46	N.A.	99.50
0-80	766.18	N.A.	100.00
0-90	766.35	N.A.	100.00
10-90	700.01	N.A.	91.30
20-40	481.01	N.A.	62.80
20-50	501.38	N.A.	65.40
40-70	32.56	N.A.	4.20
60-80	3.71	N.A.	0.50
70-80	0.76	N.A.	0.10
80-90	0.18	N.A.	0.00
90-110	0.00	N.A.	0.00
90-120	0.00	N.A.	0.00
90-130	0.00	N.A.	0.00
90-150	0.00	N.A.	0.00
90-180	0.00	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	766.36	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	66.34
10-20	185.51
20-30	309.91
30-40	171.10
40-50	20.37
50-60	9.23
60-70	2.95
70-80	0.76
80-90	0.18
90-100	0.00
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	114	111	108	106	111	109	106	104	105	103	101	101	99	98	97	96	95	93
2	108	103	99	96	106	101	98	94	98	95	92	95	93	90	92	90	89	87
3	102	96	91	87	100	95	90	86	92	88	85	90	86	84	87	85	82	81
4	97	90	84	80	95	88	83	79	86	82	78	84	81	77	82	79	77	75
5	92	84	78	74	91	83	77	73	81	76	73	79	75	72	78	74	71	70
6	87	78	72	68	86	78	72	68	76	71	67	75	70	67	73	70	67	65
7	83	74	68	63	82	73	67	63	72	67	63	70	66	62	69	65	62	61
8	79	69	63	59	78	69	63	59	68	62	59	67	62	58	66	61	58	57
9	75	65	59	55	74	65	59	55	64	59	55	63	58	55	62	58	55	53
10	71	61	56	52	70	61	55	52	60	55	51	59	55	51	59	54	51	50

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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

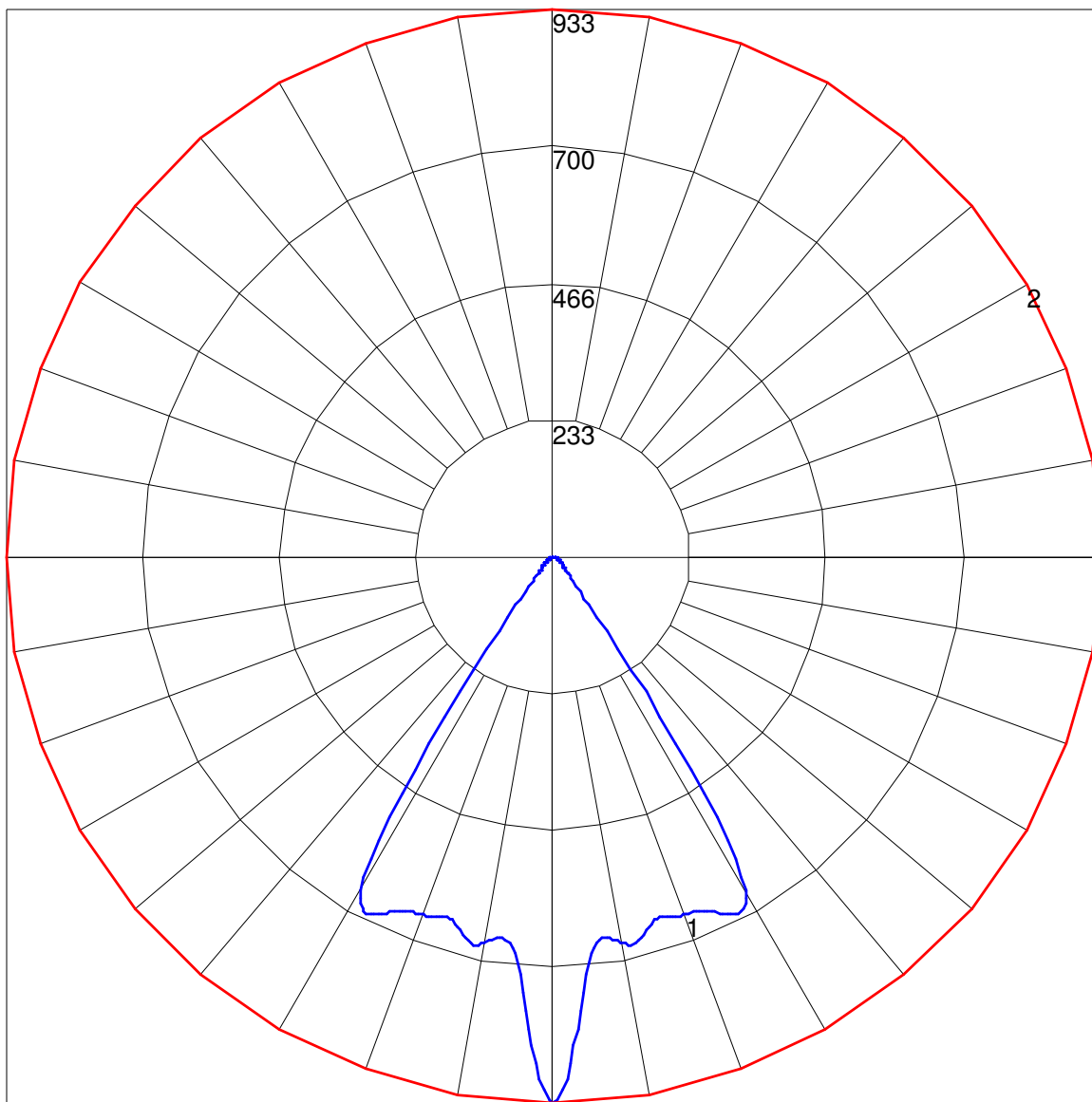
X=2H	Y=2H	1.3	2.2	1.7	2.6	2.9	1.3	2.2	1.7	2.6	2.9
	3H	1.5	2.3	1.8	2.6	3.0	1.5	2.3	1.8	2.6	3.0
	4H	1.4	2.2	1.8	2.5	2.9	1.4	2.2	1.8	2.5	2.9
	6H	1.3	2.0	1.8	2.4	2.8	1.3	2.0	1.8	2.4	2.8
	8H	1.3	1.9	1.7	2.3	2.7	1.3	1.9	1.7	2.3	2.7
	12H	1.3	1.9	1.7	2.2	2.7	1.3	1.9	1.7	2.2	2.7

### UGR Viewed Endwise

4H	2H	1.2	2.0	1.7	2.4	2.7	1.2	2.0	1.7	2.4	2.7
	3H	1.4	2.1	1.8	2.5	2.9	1.4	2.1	1.8	2.5	2.9
	4H	1.4	2.0	1.9	2.4	2.8	1.4	2.0	1.9	2.4	2.8
	6H	1.4	1.8	1.8	2.3	2.8	1.4	1.8	1.8	2.3	2.8
	8H	1.3	1.7	1.8	2.2	2.7	1.3	1.7	1.8	2.2	2.7
	12H	1.3	1.6	1.8	2.1	2.6	1.3	1.6	1.8	2.1	2.6
8H	4H	1.3	1.7	1.8	2.2	2.6	1.3	1.7	1.8	2.2	2.6
	6H	1.3	1.6	1.8	2.1	2.6	1.3	1.6	1.8	2.1	2.6
	8H	1.2	1.5	1.7	2.0	2.5	1.2	1.5	1.7	2.0	2.5
	12H	1.2	1.4	1.7	1.9	2.5	1.2	1.4	1.7	1.9	2.5
12H	4H	1.2	1.6	1.7	2.1	2.6	1.2	1.6	1.7	2.1	2.6
	6H	1.2	1.5	1.7	2.0	2.5	1.2	1.5	1.7	2.0	2.5
	8H	1.2	1.4	1.7	1.9	2.5	1.2	1.4	1.7	1.9	2.5

Maximum UGR = 3.0

POLAR GRAPH



Maximum Candela = 932.836 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.)