



IES INDOOR REPORT

PHOTOMETRIC FILENAME : HS6DR-TL-L50-935-DIM-UNV-RW-OF-WH-AD_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] GEN FROM 12326812.12
 [TESTLAB] UL Verification Services Inc.
 [ISSUEDATE] 04-27-2023
 [MANUFAC] WILLIAMS INDOOR
 [OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO.
 [LUMCAT] HS6DR-TL-L50-935-DIM-UNV-RW-OF-WH-AD
 [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	2987
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	49
Total Luminaire Watts	61
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.04
Spacing Criterion (90-270)	1.04
Spacing Criterion (Diagonal)	0.94
Basic Luminous Shape	Circular
Luminous Length (0-180)	0.48 ft (Diameter)
Luminous Width (90-270)	0.48 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	40336	40336	40336
55	33639	33639	33639
65	23732	23732	23732
75	14538	14538	14538
85	11465	11465	11465

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CANDELA TABULATION

	<u>0</u>
0.0	2209.873
0.5	2207.806
1.0	2205.739
1.5	2203.671
2.0	2199.537
2.5	2193.335
3.0	2187.134
3.5	2178.865
4.0	2170.596
4.5	2164.394
5.0	2156.125
5.5	2147.856
6.0	2139.587
6.5	2131.318
7.0	2123.049
7.5	2114.780
8.0	2104.444
8.5	2096.175
9.0	2087.906
9.5	2077.570
10.0	2069.301
10.5	2059.172
11.0	2049.249
11.5	2039.326
12.0	2029.404
12.5	2019.688
13.0	2009.765
13.5	1999.429
14.0	1989.299
14.5	1979.377
15.0	1970.074
15.5	1960.565
16.0	1951.262
16.5	1942.166
17.0	1933.691
17.5	1925.215
18.0	1916.946
18.5	1909.091
19.0	1901.235
19.5	1893.173
20.0	1884.904
20.5	1876.015
21.0	1865.885
21.5	1854.309
22.0	1841.285
22.5	1826.815
23.0	1811.104
23.5	1793.326
24.0	1773.894
24.5	1752.601
25.0	1729.035
25.5	1703.608
26.0	1675.286
26.5	1644.278

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CANDELA TABULATION - (Cont.)

27.0	1611.202
27.5	1575.232
28.0	1536.989
28.5	1495.437
29.0	1451.612
29.5	1404.065
30.0	1353.625
30.5	1300.290
31.0	1244.888
31.5	1188.246
32.0	1130.570
32.5	1073.308
33.0	1016.666
33.5	961.884
34.0	909.376
34.5	859.969
35.0	814.904
35.5	773.559
36.0	737.176
36.5	704.927
37.0	676.606
37.5	652.419
38.0	631.127
38.5	612.315
39.0	595.984
39.5	581.513
40.0	568.283
40.5	556.293
41.0	545.130
41.5	535.000
42.0	525.698
42.5	516.809
43.0	508.333
43.5	500.271
44.0	492.622
44.5	485.387
45.0	477.945
45.5	470.916
46.0	463.681
46.5	456.652
47.0	449.417
47.5	442.181
48.0	434.739
48.5	427.297
49.0	420.269
49.5	413.033
50.0	405.385
50.5	397.529
51.0	389.467
51.5	381.405
52.0	373.342
52.5	365.074
53.0	357.011
53.5	349.156
54.0	340.473
54.5	331.791

IES INDOOR REPORT**PHOTOMETRIC FILENAME : HS6DR-TL-L50-935-DIM-UNV-RW-OF-WH-AD_.IES****CANDELA TABULATION - (Cont.)**

55.0	323.315
55.5	314.633
56.0	306.157
56.5	297.682
57.0	289.206
57.5	280.730
58.0	272.668
58.5	264.399
59.0	256.337
59.5	248.482
60.0	240.626
60.5	232.771
61.0	225.122
61.5	217.680
62.0	210.238
62.5	203.002
63.0	195.767
63.5	188.532
64.0	181.710
64.5	174.681
65.0	168.066
65.5	161.244
66.0	154.836
66.5	148.427
67.0	142.226
67.5	136.024
68.0	130.029
68.5	124.034
69.0	118.453
69.5	112.664
70.0	107.289
70.5	101.915
71.0	96.747
71.5	91.785
72.0	86.824
72.5	82.276
73.0	77.935
73.5	74.007
74.0	70.079
74.5	66.565
75.0	63.051
75.5	59.950
76.0	56.849
76.5	54.162
77.0	51.681
77.5	49.200
78.0	46.719
78.5	44.239
79.0	41.965
79.5	39.691
80.0	37.417
80.5	35.143
81.0	32.869
81.5	30.802
82.0	28.528
82.5	26.461

IES INDOOR REPORT**PHOTOMETRIC FILENAME : HS6DR-TL-L50-935-DIM-UNV-RW-OF-WH-AD_.IES****CANDELA TABULATION - (Cont.)**

83.0	24.393
83.5	22.533
84.0	20.466
84.5	18.605
85.0	16.745
85.5	14.884
86.0	13.024
86.5	11.163
87.0	9.509
87.5	7.649
88.0	6.202
88.5	4.961
89.0	3.928
89.5	2.894
90.0	2.067
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 : HS6DR-TL-L50-935-DIM-UNV-RW-OF-WH-AD_.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 : HS6DR-TL-L50-935-DIM-UNV-RW-OF-WH-AD_.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 : HS6DR-TL-L50-935-DIM-UNV-RW-OF-WH-AD_.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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Zone	Lumens	%Lamp	%Fixt
0-20	759.36	N.A.	25.40
0-30	1535.13	N.A.	51.40
0-40	2071.86	N.A.	69.40
0-60	2730.52	N.A.	91.40
0-80	2968.3	N.A.	99.40
0-90	2987.37	N.A.	100.00
10-90	2784.36	N.A.	93.20
20-40	1312.5	N.A.	43.90
20-50	1682.81	N.A.	56.30
40-70	826.48	N.A.	27.70
60-80	237.78	N.A.	8.00
70-80	69.96	N.A.	2.30
80-90	19.07	N.A.	0.60
90-110	0.06	N.A.	0.00
90-120	0.06	N.A.	0.00
90-130	0.06	N.A.	0.00
90-150	0.06	N.A.	0.00
90-180	0.06	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	2987.42	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	203.00
10-20	556.36
20-30	775.77
30-40	536.73
40-50	370.31
50-60	288.35
60-70	167.82
70-80	69.96
80-90	19.07
90-100	0.06
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	112	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	91	89
2	104	98	92	88	102	96	91	87	92	88	85	89	86	83	86	84	81	79
3	97	89	82	77	95	87	81	76	84	79	75	82	77	74	79	76	73	71
4	90	81	74	68	88	80	73	68	77	72	67	75	70	66	73	69	66	64
5	85	74	67	62	83	73	66	61	71	65	61	69	64	60	68	63	59	58
6	79	68	61	56	78	68	61	56	66	60	55	64	59	55	63	58	54	53
7	75	63	56	51	73	63	56	51	61	55	50	60	54	50	59	54	50	48
8	70	59	52	47	69	58	51	47	57	51	46	56	50	46	55	50	46	44
9	66	55	48	43	65	54	48	43	53	47	43	52	47	43	51	46	43	41
10	63	51	45	40	62	51	44	40	50	44	40	49	44	40	48	43	40	38

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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

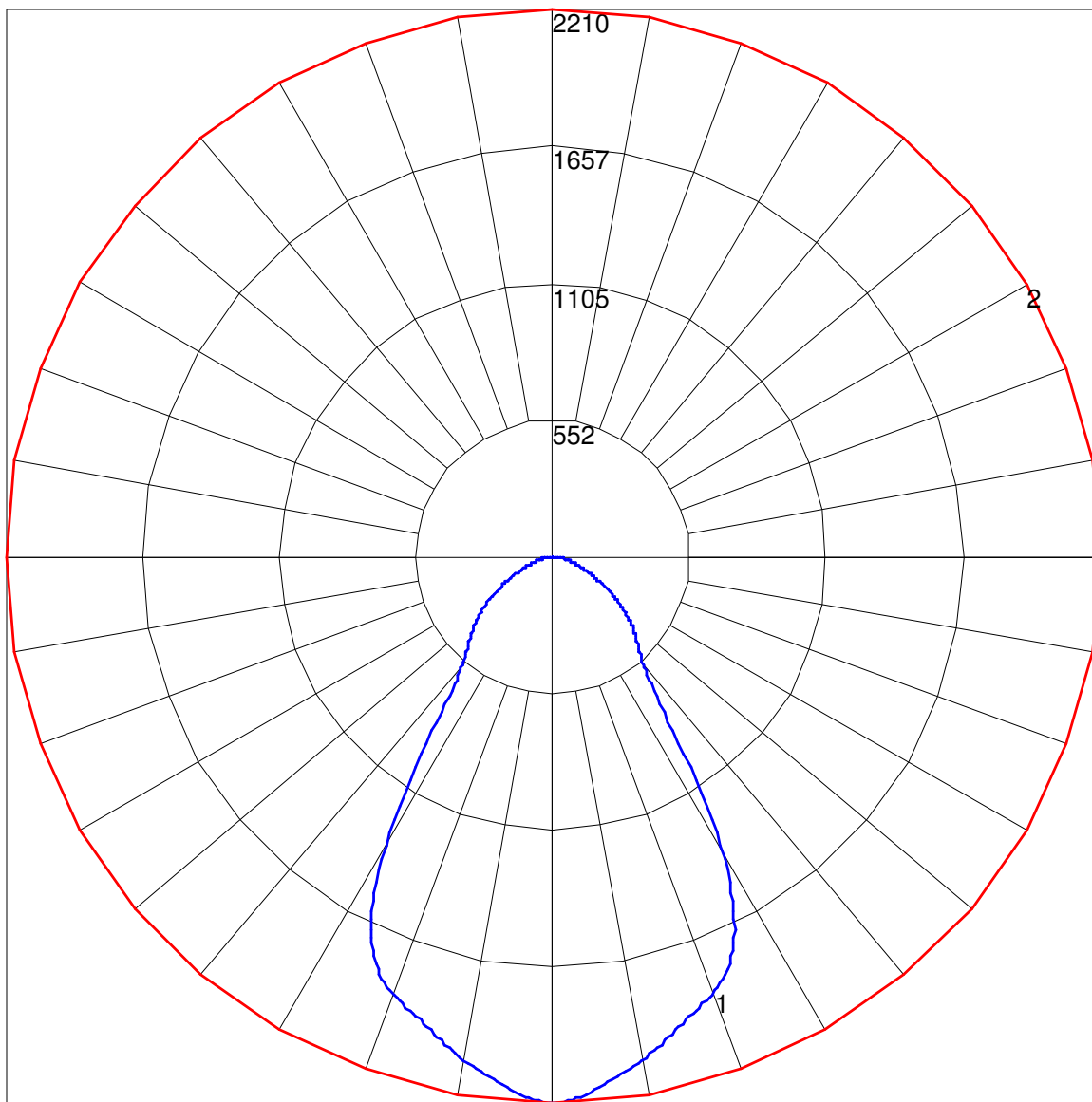
X=2H	Y=2H	21.6	23.0	22.0	23.3	23.6	21.6	23.0	22.0	23.3	23.6
	3H	22.6	23.8	23.0	24.1	24.5	22.6	23.8	23.0	24.1	24.5
	4H	22.9	24.0	23.3	24.3	24.7	22.9	24.0	23.3	24.3	24.7
	6H	23.0	24.1	23.5	24.4	24.8	23.0	24.1	23.5	24.4	24.8
	8H	23.1	24.1	23.5	24.5	24.9	23.1	24.1	23.5	24.5	24.9
	12H	23.1	24.0	23.6	24.4	24.9	23.1	24.0	23.6	24.4	24.9

UGR Viewed Endwise

4H	2H	22.0	23.1	22.4	23.4	23.8	22.0	23.1	22.4	23.4	23.8
	3H	23.1	24.0	23.5	24.4	24.8	23.1	24.0	23.5	24.4	24.8
	4H	23.5	24.3	23.9	24.7	25.1	23.5	24.3	23.9	24.7	25.1
	6H	23.7	24.4	24.2	24.9	25.3	23.7	24.4	24.2	24.9	25.3
	8H	23.8	24.4	24.3	24.9	25.4	23.8	24.4	24.3	24.9	25.4
	12H	23.9	24.4	24.3	24.9	25.4	23.9	24.4	24.3	24.9	25.4
8H	4H	23.5	24.2	24.0	24.6	25.1	23.5	24.2	24.0	24.6	25.1
	6H	23.9	24.4	24.4	24.9	25.4	23.9	24.4	24.4	24.9	25.4
	8H	24.0	24.5	24.5	25.0	25.5	24.0	24.5	24.5	25.0	25.5
	12H	24.1	24.5	24.6	25.0	25.6	24.1	24.5	24.6	25.0	25.6
12H	4H	23.5	24.1	24.0	24.6	25.1	23.5	24.1	24.0	24.6	25.1
	6H	23.9	24.4	24.4	24.8	25.4	23.9	24.4	24.4	24.8	25.4
	8H	24.0	24.5	24.6	25.0	25.5	24.0	24.5	24.6	25.0	25.5

Maximum UGR = 25.6

POLAR GRAPH



Maximum Candela = 2209.873 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.)