



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : 4CS-L15-835-XXX-DIM-UNV-RM-WH.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002  
 [TEST] GEN FROM 13257153.20  
 [TESTLAB] UL Verification Services Inc.  
 [ISSUEDATE] 02/08/2021  
 [MANUFAC] WILLIAMS INDOOR  
 [OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO.  
 [LUMCAT] 4CS-L15-835-xxx-DIM-UNV-RM-WH  
 [LUMINAIRE] Square Aluminum housing, optics, and trim enclosure  
 [LAMP] One white LED  
 [\_SEARCH\_SOURCETYPE] LED  
 [\_SEARCH\_APPLICATION] Indoor, Downlight  
 [\_SEARCH\_MOUNTING] Surface, Suspended, Wall

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	1583
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	91
Total Luminaire Watts	17.3092
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.52
Spacing Criterion (90-270)	0.52
Spacing Criterion (Diagonal)	0.50
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	0.21 ft
Luminous Width (90-270)	0.21 ft
Luminous Height	0.00 ft

### LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	46541	54134	46717
55	28515	32372	28992
65	21997	20350	21820
75	12677	11621	12389
85	5704	5704	5989

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**CANDELA TABULATION**

	<u>0.0</u>	<u>22.5</u>	<u>45.0</u>	<u>67.5</u>	<u>90.0</u>
0.0	3972.0	3972.0	3972.0	3972.0	3972.0
0.5	3979.0	3960.0	3965.0	3975.0	3979.0
1.0	3970.0	3951.0	3957.0	3968.0	3973.0
1.5	3958.0	3940.0	3945.0	3957.0	3962.0
2.0	3941.0	3923.0	3929.0	3942.0	3948.0
2.5	3918.0	3902.0	3908.0	3921.0	3928.0
3.0	3892.0	3877.0	3883.0	3896.0	3902.0
3.5	3864.0	3847.0	3854.0	3867.0	3872.0
4.0	3831.0	3814.0	3822.0	3834.0	3837.0
4.5	3793.0	3777.0	3786.0	3796.0	3798.0
5.0	3752.0	3737.0	3745.0	3755.0	3757.0
5.5	3708.0	3694.0	3702.0	3712.0	3711.0
6.0	3659.0	3648.0	3657.0	3665.0	3663.0
6.5	3610.0	3600.0	3609.0	3615.0	3611.0
7.0	3558.0	3548.0	3558.0	3561.0	3558.0
7.5	3501.0	3494.0	3503.0	3503.0	3501.0
8.0	3440.0	3434.0	3445.0	3442.0	3438.0
8.5	3374.0	3369.0	3380.0	3375.0	3369.0
9.0	3303.0	3298.0	3312.0	3304.0	3298.0
9.5	3225.0	3222.0	3238.0	3229.0	3222.0
10.0	3139.0	3140.0	3157.0	3146.0	3138.0
10.5	3048.0	3051.0	3069.0	3060.0	3049.0
11.0	2952.0	2956.0	2975.0	2966.0	2954.0
11.5	2849.0	2855.0	2875.0	2866.0	2852.0
12.0	2740.0	2747.0	2770.0	2760.0	2745.0
12.5	2626.0	2634.0	2659.0	2650.0	2633.0
13.0	2506.0	2516.0	2545.0	2536.0	2515.0
13.5	2384.0	2397.0	2426.0	2417.0	2394.0
14.0	2255.0	2273.0	2303.0	2296.0	2272.0
14.5	2127.0	2148.0	2180.0	2173.0	2148.0
15.0	1998.0	2023.0	2058.0	2051.0	2024.0
15.5	1870.0	1900.0	1938.0	1930.0	1899.0
16.0	1745.0	1780.0	1820.0	1811.0	1779.0
16.5	1624.0	1664.0	1707.0	1696.0	1662.0
17.0	1507.0	1552.0	1597.0	1586.0	1550.0
17.5	1399.0	1446.0	1493.0	1480.0	1442.0
18.0	1296.0	1345.0	1395.0	1379.0	1340.0
18.5	1199.0	1251.0	1304.0	1285.0	1246.0
19.0	1112.0	1165.0	1219.0	1198.0	1158.0
19.5	1033.0	1087.0	1143.0	1118.0	1079.0
20.0	961.6	1015.0	1072.0	1045.0	1005.0
20.5	898.5	949.3	1008.0	977.3	938.6
21.0	842.2	891.5	950.0	916.4	879.1
21.5	793.0	838.9	898.1	861.3	826.2
22.0	748.1	792.8	851.4	812.2	777.8
22.5	709.5	751.2	809.4	768.6	734.2
23.0	674.6	714.2	771.3	729.2	694.8
23.5	643.5	681.0	737.0	693.7	659.5
24.0	615.9	651.2	705.7	661.2	627.6
24.5	590.3	624.4	677.5	632.1	598.6
25.0	566.5	599.8	651.6	605.9	571.8
25.5	544.2	577.1	627.8	581.6	547.2
26.0	523.2	555.7	606.0	559.1	524.3
26.5	502.7	535.7	585.3	537.9	502.4

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**CANDELA TABULATION - (Cont.)**

27.0	482.8	516.5	566.0	517.8	481.8
27.5	463.6	497.8	547.6	498.8	462.2
28.0	445.3	479.8	529.9	480.4	443.9
28.5	427.4	461.9	513.1	462.5	426.0
29.0	408.8	444.5	496.5	445.0	408.6
29.5	391.1	427.4	480.2	427.9	392.2
30.0	373.9	410.6	463.9	411.3	376.2
30.5	357.7	394.0	448.1	395.1	360.8
31.0	342.4	377.9	432.5	379.3	346.2
31.5	327.8	362.3	417.3	364.1	332.2
32.0	314.3	347.4	402.4	349.7	318.6
32.5	301.3	333.2	387.8	335.9	305.6
33.0	286.9	319.3	373.4	322.4	293.6
33.5	273.7	305.9	359.5	309.6	282.0
34.0	263.5	293.3	345.8	297.5	270.8
34.5	254.4	281.7	332.3	285.9	260.5
35.0	244.7	270.9	319.4	275.0	250.9
35.5	235.7	260.7	306.8	264.5	242.2
36.0	228.5	251.2	294.7	254.8	233.5
36.5	221.9	241.3	282.9	245.8	225.9
37.0	215.6	232.1	271.7	237.1	218.3
37.5	209.2	224.0	261.1	229.1	211.6
38.0	203.6	216.9	251.2	221.1	205.0
38.5	198.0	210.0	241.7	214.0	199.0
39.0	192.5	203.2	232.4	206.9	193.1
39.5	187.0	197.1	223.6	200.4	187.6
40.0	181.7	191.4	215.4	193.9	182.1
40.5	176.4	185.9	207.6	187.9	176.7
41.0	171.2	180.5	200.1	182.2	171.5
41.5	166.1	175.3	193.1	176.7	166.4
42.0	161.0	170.4	186.6	171.4	161.3
42.5	156.1	165.5	180.4	166.3	156.3
43.0	151.2	160.7	174.7	161.3	151.4
43.5	146.3	156.0	169.1	156.4	146.7
44.0	141.7	151.4	163.9	151.7	141.9
44.5	137.0	146.9	158.8	147.1	137.3
45.0	132.4	142.4	154.0	142.6	132.9
45.5	128.0	138.1	149.2	138.2	128.4
46.0	123.6	133.7	144.6	133.9	124.2
46.5	119.3	129.4	139.9	129.6	119.9
47.0	115.2	125.1	135.3	125.3	115.7
47.5	111.1	120.9	130.8	121.2	111.7
48.0	107.0	116.8	126.5	117.1	107.8
48.5	103.2	112.8	122.1	113.2	104.0
49.0	99.5	108.9	117.8	109.3	100.3
49.5	95.7	105.0	113.6	105.5	96.8
50.0	92.4	101.4	109.5	101.9	93.4
50.5	89.0	97.8	105.6	98.3	90.1
51.0	85.9	94.3	101.7	95.0	87.0
51.5	82.9	91.1	98.0	91.7	84.0
52.0	79.9	87.8	94.3	88.5	81.1
52.5	77.3	84.7	90.7	85.4	78.5
53.0	74.6	81.7	87.3	82.5	75.9
53.5	72.2	78.8	84.0	79.6	73.5
54.0	69.9	76.0	80.7	76.9	71.2
54.5	67.7	73.4	77.7	74.2	68.9

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**CANDELA TABULATION - (Cont.)**

55.0	65.8	70.8	74.7	71.7	66.9
55.5	63.8	68.4	71.9	69.2	65.0
56.0	62.0	66.1	69.2	67.0	63.0
56.5	60.2	63.9	66.5	64.7	61.2
57.0	58.6	61.8	64.0	62.6	59.5
57.5	57.1	59.9	61.6	60.5	57.9
58.0	55.6	58.0	59.3	58.6	56.3
58.5	54.3	56.2	57.1	56.7	54.7
59.0	52.8	54.4	54.9	54.9	53.2
59.5	51.5	52.7	52.9	53.1	51.7
60.0	50.3	51.2	50.9	51.5	50.3
60.5	49.0	49.6	49.0	49.8	49.0
61.0	47.8	48.1	47.2	48.3	47.6
61.5	46.4	46.6	45.4	46.7	46.2
62.0	45.1	45.2	43.8	45.2	44.9
62.5	43.8	43.8	42.1	43.7	43.6
63.0	42.5	42.4	40.6	42.2	42.3
63.5	41.2	41.0	39.0	40.8	40.9
64.0	39.9	39.6	37.5	39.4	39.6
64.5	38.7	38.3	36.0	38.0	38.3
65.0	37.4	36.9	34.6	36.7	37.1
65.5	36.1	35.6	33.3	35.3	35.8
66.0	34.8	34.4	31.9	34.0	34.5
66.5	33.6	33.0	30.6	32.7	33.3
67.0	32.3	31.8	29.3	31.4	32.0
67.5	31.1	30.5	28.1	30.2	30.8
68.0	29.9	29.3	26.9	28.9	29.6
68.5	28.6	28.0	25.7	27.7	28.4
69.0	27.4	26.8	24.6	26.5	27.1
69.5	26.2	25.6	23.4	25.2	26.0
70.0	25.0	24.4	22.3	24.1	24.7
70.5	23.8	23.2	21.2	22.9	23.6
71.0	22.6	22.0	20.1	21.7	22.3
71.5	21.4	20.9	19.1	20.6	21.2
72.0	20.2	19.8	18.0	19.4	20.1
72.5	19.1	18.6	17.0	18.3	18.9
73.0	17.9	17.5	16.0	17.2	17.7
73.5	16.8	16.4	14.9	16.1	16.5
74.0	15.6	15.3	14.0	15.0	15.4
74.5	14.4	14.3	13.1	14.0	14.2
75.0	13.2	13.2	12.1	12.8	12.9
75.5	11.8	12.0	11.3	11.8	11.6
76.0	10.4	10.9	10.4	10.7	10.2
76.5	8.8	9.8	9.5	9.5	9.1
77.0	7.2	8.8	8.7	8.6	8.3
77.5	6.3	7.8	8.0	7.6	7.4
78.0	5.9	6.9	7.3	6.9	6.4
78.5	5.5	5.9	6.6	6.2	5.7
79.0	5.2	5.4	5.9	5.7	5.4
79.5	4.9	5.0	5.4	5.2	5.0
80.0	4.6	4.7	5.0	4.8	4.8
80.5	4.3	4.4	4.5	4.4	4.5
81.0	4.1	4.1	4.1	4.2	4.2
81.5	3.8	3.9	3.9	3.9	3.9
82.0	3.5	3.6	3.6	3.6	3.6
82.5	3.2	3.3	3.3	3.3	3.3

**IES INDOOR REPORT**  
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**CANDELA TABULATION - (Cont.)**

83.0	3.0	3.1	3.0	3.0	3.1
83.5	2.7	2.8	2.8	2.8	2.8
84.0	2.4	2.5	2.5	2.6	2.6
84.5	2.3	2.3	2.3	2.3	2.3
85.0	2.0	2.1	2.0	2.0	2.1
85.5	1.7	1.8	1.8	1.8	1.9
86.0	1.6	1.6	1.5	1.6	1.6
86.5	1.3	1.4	1.4	1.4	1.4
87.0	1.1	1.2	1.1	1.1	1.2
87.5	0.9	0.9	0.9	1.0	1.0
88.0	0.7	0.8	0.7	0.7	0.8
88.5	0.5	0.6	0.6	0.6	0.6
89.0	0.3	0.4	0.4	0.4	0.5
89.5	0.2	0.2	0.3	0.3	0.4
90.0	0.0	0.0	0.0	0.0	0.0
90.5	0.0	0.0	0.0	0.0	0.0
91.0	0.0	0.0	0.0	0.0	0.0
91.5	0.0	0.0	0.0	0.0	0.0
92.0	0.0	0.0	0.0	0.0	0.0
92.5	0.0	0.0	0.0	0.0	0.0
93.0	0.0	0.0	0.0	0.0	0.0
93.5	0.0	0.0	0.0	0.0	0.0
94.0	0.0	0.0	0.0	0.0	0.0
94.5	0.0	0.0	0.0	0.0	0.0
95.0	0.0	0.0	0.0	0.0	0.0
95.5	0.0	0.0	0.0	0.0	0.0
96.0	0.0	0.0	0.0	0.0	0.0
96.5	0.0	0.0	0.0	0.0	0.0
97.0	0.0	0.0	0.0	0.0	0.0
97.5	0.0	0.0	0.0	0.0	0.0
98.0	0.0	0.0	0.0	0.0	0.0
98.5	0.0	0.0	0.0	0.0	0.0
99.0	0.0	0.0	0.0	0.0	0.0
99.5	0.0	0.0	0.0	0.0	0.0
100.0	0.0	0.0	0.0	0.0	0.0
100.5	0.0	0.0	0.0	0.0	0.0
101.0	0.0	0.0	0.0	0.0	0.0
101.5	0.0	0.0	0.0	0.0	0.0
102.0	0.0	0.0	0.0	0.0	0.0
102.5	0.0	0.0	0.0	0.0	0.0
103.0	0.0	0.0	0.0	0.0	0.0
103.5	0.0	0.0	0.0	0.0	0.0
104.0	0.0	0.0	0.0	0.0	0.0
104.5	0.0	0.0	0.0	0.0	0.0
105.0	0.0	0.0	0.0	0.0	0.0
105.5	0.0	0.0	0.0	0.0	0.0
106.0	0.0	0.0	0.0	0.0	0.0
106.5	0.0	0.0	0.0	0.0	0.0
107.0	0.0	0.0	0.0	0.0	0.0
107.5	0.0	0.0	0.0	0.0	0.0
108.0	0.0	0.0	0.0	0.0	0.0
108.5	0.0	0.0	0.0	0.0	0.0
109.0	0.0	0.0	0.0	0.0	0.0
109.5	0.0	0.0	0.0	0.0	0.0
110.0	0.0	0.0	0.0	0.0	0.0
110.5	0.0	0.0	0.0	0.0	0.0

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CANDELA TABULATION - (Cont.)

111.0	0.0	0.0	0.0	0.0	0.0
111.5	0.0	0.0	0.0	0.0	0.0
112.0	0.0	0.0	0.0	0.0	0.0
112.5	0.0	0.0	0.0	0.0	0.0
113.0	0.0	0.0	0.0	0.0	0.0
113.5	0.0	0.0	0.0	0.0	0.0
114.0	0.0	0.0	0.0	0.0	0.0
114.5	0.0	0.0	0.0	0.0	0.0
115.0	0.0	0.0	0.0	0.0	0.0
115.5	0.0	0.0	0.0	0.0	0.0
116.0	0.0	0.0	0.0	0.0	0.0
116.5	0.0	0.0	0.0	0.0	0.0
117.0	0.0	0.0	0.0	0.0	0.0
117.5	0.0	0.0	0.0	0.0	0.0
118.0	0.0	0.0	0.0	0.0	0.0
118.5	0.0	0.0	0.0	0.0	0.0
119.0	0.0	0.0	0.0	0.0	0.0
119.5	0.0	0.0	0.0	0.0	0.0
120.0	0.0	0.0	0.0	0.0	0.0
120.5	0.0	0.0	0.0	0.0	0.0
121.0	0.0	0.0	0.0	0.0	0.0
121.5	0.0	0.0	0.0	0.0	0.0
122.0	0.0	0.0	0.0	0.0	0.0
122.5	0.0	0.0	0.0	0.0	0.0
123.0	0.0	0.0	0.0	0.0	0.0
123.5	0.0	0.0	0.0	0.0	0.0
124.0	0.0	0.0	0.0	0.0	0.0
124.5	0.0	0.0	0.0	0.0	0.0
125.0	0.0	0.0	0.0	0.0	0.0
125.5	0.0	0.0	0.0	0.0	0.0
126.0	0.0	0.0	0.0	0.0	0.0
126.5	0.0	0.0	0.0	0.0	0.0
127.0	0.0	0.0	0.0	0.0	0.0
127.5	0.0	0.0	0.0	0.0	0.0
128.0	0.0	0.0	0.0	0.0	0.0
128.5	0.0	0.0	0.0	0.0	0.0
129.0	0.0	0.0	0.0	0.0	0.0
129.5	0.0	0.0	0.0	0.0	0.0
130.0	0.0	0.0	0.0	0.0	0.0
130.5	0.0	0.0	0.0	0.0	0.0
131.0	0.0	0.0	0.0	0.0	0.0
131.5	0.0	0.0	0.0	0.0	0.0
132.0	0.0	0.0	0.0	0.0	0.0
132.5	0.0	0.0	0.0	0.0	0.0
133.0	0.0	0.0	0.0	0.0	0.0
133.5	0.0	0.0	0.0	0.0	0.0
134.0	0.0	0.0	0.0	0.0	0.0
134.5	0.0	0.0	0.0	0.0	0.0
135.0	0.0	0.0	0.0	0.0	0.0
135.5	0.0	0.0	0.0	0.0	0.0
136.0	0.0	0.0	0.0	0.0	0.0
136.5	0.0	0.0	0.0	0.0	0.0
137.0	0.0	0.0	0.0	0.0	0.0
137.5	0.0	0.0	0.0	0.0	0.0
138.0	0.0	0.0	0.0	0.0	0.0
138.5	0.0	0.0	0.0	0.0	0.0

IES INDOOR REPORT  
PHOTOMETRIC FILENAME : 4CS-L15-835-XXX-DIM-UNV-RM-WH.IES

CANDELA TABULATION - (Cont.)

139.0	0.0	0.0	0.0	0.0	0.0
139.5	0.0	0.0	0.0	0.0	0.0
140.0	0.0	0.0	0.0	0.0	0.0
140.5	0.0	0.0	0.0	0.0	0.0
141.0	0.0	0.0	0.0	0.0	0.0
141.5	0.0	0.0	0.0	0.0	0.0
142.0	0.0	0.0	0.0	0.0	0.0
142.5	0.0	0.0	0.0	0.0	0.0
143.0	0.0	0.0	0.0	0.0	0.0
143.5	0.0	0.0	0.0	0.0	0.0
144.0	0.0	0.0	0.0	0.0	0.0
144.5	0.0	0.0	0.0	0.0	0.0
145.0	0.0	0.0	0.0	0.0	0.0
145.5	0.0	0.0	0.0	0.0	0.0
146.0	0.0	0.0	0.0	0.0	0.0
146.5	0.0	0.0	0.0	0.0	0.0
147.0	0.0	0.0	0.0	0.0	0.0
147.5	0.0	0.0	0.0	0.0	0.0
148.0	0.0	0.0	0.0	0.0	0.0
148.5	0.0	0.0	0.0	0.0	0.0
149.0	0.0	0.0	0.0	0.0	0.0
149.5	0.0	0.0	0.0	0.0	0.0
150.0	0.0	0.0	0.0	0.0	0.0
150.5	0.0	0.0	0.0	0.0	0.0
151.0	0.0	0.0	0.0	0.0	0.0
151.5	0.0	0.0	0.0	0.0	0.0
152.0	0.0	0.0	0.0	0.0	0.0
152.5	0.0	0.0	0.0	0.0	0.0
153.0	0.0	0.0	0.0	0.0	0.0
153.5	0.0	0.0	0.0	0.0	0.0
154.0	0.0	0.0	0.0	0.0	0.0
154.5	0.0	0.0	0.0	0.0	0.0
155.0	0.0	0.0	0.0	0.0	0.0
155.5	0.0	0.0	0.0	0.0	0.0
156.0	0.0	0.0	0.0	0.0	0.0
156.5	0.0	0.0	0.0	0.0	0.0
157.0	0.0	0.0	0.0	0.0	0.0
157.5	0.0	0.0	0.0	0.0	0.0
158.0	0.0	0.0	0.0	0.0	0.0
158.5	0.0	0.0	0.0	0.0	0.0
159.0	0.0	0.0	0.0	0.0	0.0
159.5	0.0	0.0	0.0	0.0	0.0
160.0	0.0	0.0	0.0	0.0	0.0
160.5	0.0	0.0	0.0	0.0	0.0
161.0	0.0	0.0	0.0	0.0	0.0
161.5	0.0	0.0	0.0	0.0	0.0
162.0	0.0	0.0	0.0	0.0	0.0
162.5	0.0	0.0	0.0	0.0	0.0
163.0	0.0	0.0	0.0	0.0	0.0
163.5	0.0	0.0	0.0	0.0	0.0
164.0	0.0	0.0	0.0	0.0	0.0
164.5	0.0	0.0	0.0	0.0	0.0
165.0	0.0	0.0	0.0	0.0	0.0
165.5	0.0	0.0	0.0	0.0	0.0
166.0	0.0	0.0	0.0	0.0	0.0
166.5	0.0	0.0	0.0	0.0	0.0

IES INDOOR REPORT  
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CANDELA TABULATION - (Cont.)

167.0	0.0	0.0	0.0	0.0	0.0
167.5	0.0	0.0	0.0	0.0	0.0
168.0	0.0	0.0	0.0	0.0	0.0
168.5	0.0	0.0	0.0	0.0	0.0
169.0	0.0	0.0	0.0	0.0	0.0
169.5	0.0	0.0	0.0	0.0	0.0
170.0	0.0	0.0	0.0	0.0	0.0
170.5	0.0	0.0	0.0	0.0	0.0
171.0	0.0	0.0	0.0	0.0	0.0
171.5	0.0	0.0	0.0	0.0	0.0
172.0	0.0	0.0	0.0	0.0	0.0
172.5	0.0	0.0	0.0	0.0	0.0
173.0	0.0	0.0	0.0	0.0	0.0
173.5	0.0	0.0	0.0	0.0	0.0
174.0	0.0	0.0	0.0	0.0	0.0
174.5	0.0	0.0	0.0	0.0	0.0
175.0	0.0	0.0	0.0	0.0	0.0
175.5	0.0	0.0	0.0	0.0	0.0
176.0	0.0	0.0	0.0	0.0	0.0
176.5	0.0	0.0	0.0	0.0	0.0
177.0	0.0	0.0	0.0	0.0	0.0
177.5	0.0	0.0	0.0	0.0	0.0
178.0	0.0	0.0	0.0	0.0	0.0
178.5	0.0	0.0	0.0	0.0	0.0
179.0	0.0	0.0	0.0	0.0	0.0
179.5	0.0	0.0	0.0	0.0	0.0
180.0	0.0	0.0	0.0	0.0	0.0



**IES INDOOR REPORT**  
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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	887.00	N.A.	56.00
0-30	1176.48	N.A.	74.30
0-40	1354.36	N.A.	85.60
0-60	1530.1	N.A.	96.70
0-80	1580.18	N.A.	99.90
0-90	1582.53	N.A.	100.00
10-90	1243.5	N.A.	78.60
20-40	467.36	N.A.	29.50
20-50	578.33	N.A.	36.50
40-70	212.00	N.A.	13.40
60-80	50.08	N.A.	3.20
70-80	13.82	N.A.	0.90
80-90	2.35	N.A.	0.10
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	1582.53	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	339.03
10-20	547.97
20-30	289.48
30-40	177.88
40-50	110.97
50-60	64.77
60-70	36.26
70-80	13.82
80-90	2.35
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

**IES INDOOR REPORT**  
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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	113	111	108	106	111	109	106	104	105	103	101	101	99	98	97	96	95	94
2	108	103	99	96	106	102	98	95	98	95	93	95	93	91	93	91	89	87
3	103	97	92	88	101	95	91	87	93	89	86	90	87	85	88	85	83	82
4	98	91	86	82	96	90	85	81	88	83	80	86	82	79	84	81	78	77
5	94	86	80	76	92	85	80	76	83	79	75	82	78	75	80	77	74	73
6	90	81	76	72	88	81	75	72	79	75	71	78	74	71	77	73	70	69
7	86	77	72	68	85	77	72	68	76	71	67	74	70	67	73	70	67	65
8	83	74	68	65	82	73	68	64	72	68	64	71	67	64	70	67	64	62
9	80	71	65	62	78	70	65	62	69	65	61	68	64	61	68	64	61	60
10	77	68	63	59	76	67	62	59	67	62	59	66	62	59	65	61	58	57

**IES INDOOR REPORT**  
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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

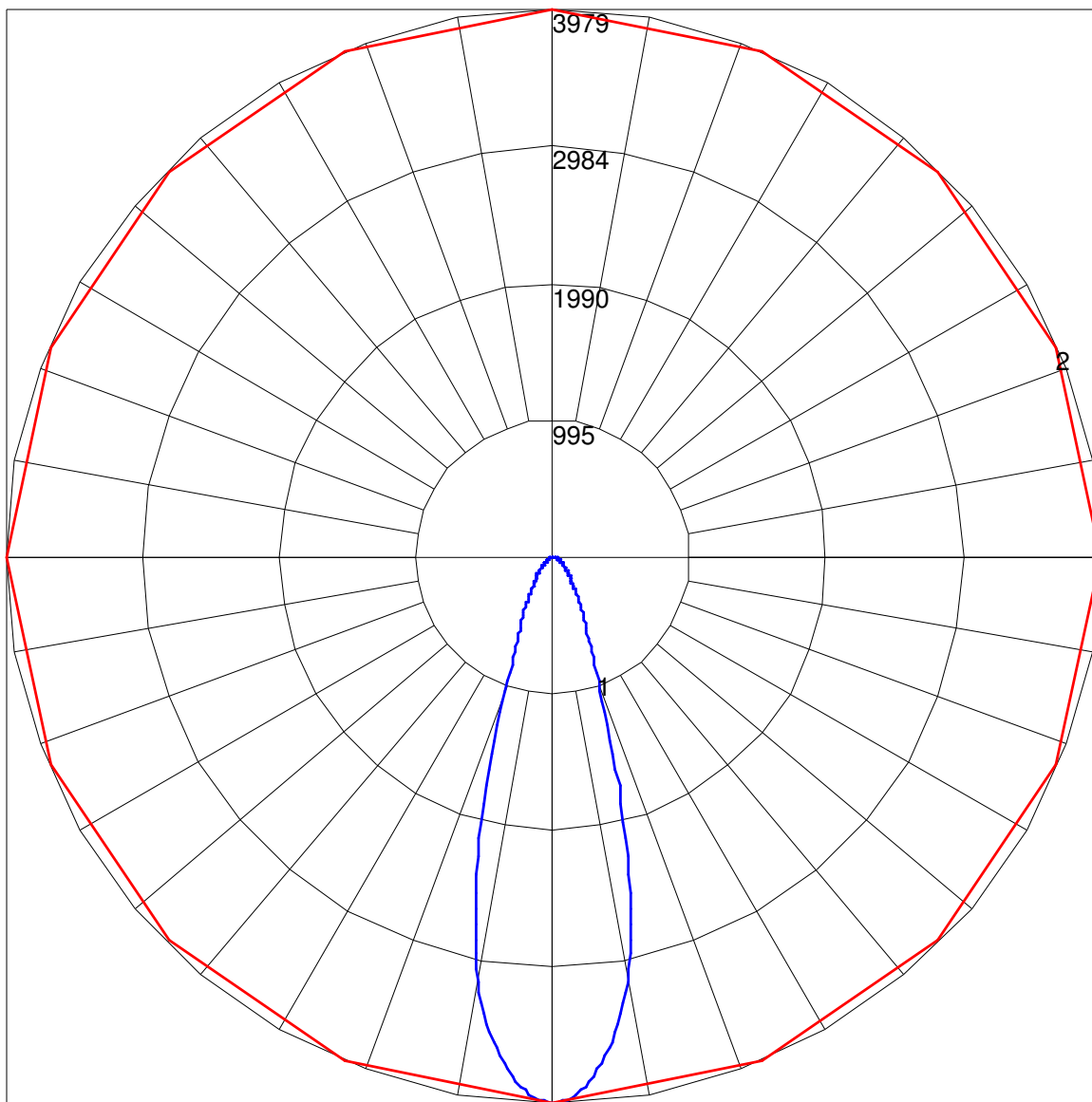
X=2H	Y=2H	19.3	20.3	19.6	20.6	21.0	19.3	20.4	19.7	20.7	21.0
	3H	20.4	21.3	20.7	21.6	22.0	20.4	21.3	20.8	21.7	22.0
	4H	20.6	21.5	21.0	21.8	22.2	20.6	21.5	21.0	21.8	22.2
	6H	20.6	21.4	21.0	21.8	22.2	20.6	21.4	21.0	21.8	22.2
	8H	20.6	21.3	21.0	21.7	22.1	20.6	21.4	21.0	21.8	22.2
	12H	20.5	21.3	21.0	21.6	22.1	20.6	21.3	21.0	21.7	22.1

UGR Viewed Endwise

4H	2H	19.5	20.4	19.9	20.7	21.1	19.6	20.5	20.0	20.8	21.2
	3H	20.8	21.5	21.2	21.9	22.3	20.8	21.5	21.2	21.9	22.3
	4H	21.1	21.7	21.5	22.1	22.6	21.1	21.7	21.5	22.1	22.6
	6H	21.1	21.6	21.6	22.1	22.6	21.1	21.7	21.6	22.1	22.6
	8H	21.1	21.6	21.6	22.0	22.5	21.1	21.6	21.6	22.1	22.5
	12H	21.1	21.5	21.5	22.0	22.5	21.1	21.5	21.6	22.0	22.5
8H	4H	21.1	21.6	21.5	22.0	22.5	21.1	21.6	21.5	22.0	22.5
	6H	21.1	21.5	21.6	22.0	22.5	21.1	21.5	21.6	22.1	22.5
	8H	21.1	21.5	21.6	22.0	22.5	21.1	21.5	21.7	22.0	22.5
	12H	21.1	21.4	21.7	21.9	22.5	21.2	21.5	21.7	22.0	22.5
12H	4H	21.0	21.5	21.5	21.9	22.4	21.0	21.5	21.5	21.9	22.4
	6H	21.1	21.4	21.6	21.9	22.5	21.1	21.5	21.6	21.9	22.5
	8H	21.1	21.4	21.6	21.9	22.5	21.1	21.4	21.7	21.9	22.5

Maximum UGR = 22.6

POLAR GRAPH



Maximum Candela = 3979 Located At Horizontal Angle = 0, Vertical Angle = .5  
# 1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)  
# 2 - Horizontal Cone Through Vertical Angle (.5) (Through Max. Cd.)