



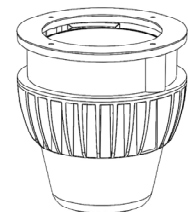
IES INDOOR REPORT
PHOTOMETRIC FILENAME : 15973 PROSERIES LED UTILITY UPGRADE.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST]ITL81669
[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.
[ISSUE DATE]05/20/14
[MANUFAC]ENGINEERED PRODUCTS CO.
[LUMCAT]15973
[LUMINAIRE]MOLDED BLACK PLASTIC HOUSING, CAST BLACK PAINTED FINNED
[MORE]METAL HEAT SINK, 22 LEDS, TRANSLUCENT WHITE PLASTIC DROP LENS.
[MORE]EXACT INTERIOR PROPERTIES UNKNOWN AS THIS IS A SEALED UNIT.
[LAMP]TWENTY-TWO UNKNOWN TYPE OF WHITE LIGHT EMITTING DIODES (LEDS),
[MORE]VERTICAL BASE-UP POSITION.
[OTHER]TOTAL INPUT WATTS = 13.8 AT 120.0 VOLTS
[MOUNTING]SURFACE
[LEDDRIVER]INTEGRAL
[NOTE]DATA SHOWN IS ABSOLUTE FOR THE SAMPLE PROVIDED AT RATED INPUT
[MORE]VOLTAGE (120VAC, 60Hz) TO THE LED ASSEMBLY.
[OTHER]TEST PROCEDURE: IESNA LM-79-08
[OTHER]TEST DISTANCE = 20.0 FEET
[ABSOLUTE]LUMENS]1482

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	1482
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	107
Total Luminaire Watts	13.81
Ballast Factor	1.00
CIE Type	Semi-Direct
Spacing Criterion (0-180)	1.58
Spacing Criterion (90-270)	1.58
Spacing Criterion (Diagonal)	1.70
Basic Luminous Shape	Circular w/ Sides
Luminous Length (0-180)	0.25 ft (Diameter)
Luminous Width (90-270)	0.25 ft (Diameter)
Luminous Height	0.15 ft



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LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	45654	45654	45654
55	42704	42704	42704
65	38147	38147	38147
75	32584	32584	32584
85	27654	27654	27654

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CANDELA TABULATION

	<u>0</u>
0.0	261.6
2.5	261.6
5.0	261.6
7.5	261.6
10.0	261.6
12.5	262.8
15.0	265.2
17.5	267.6
20.0	268.8
22.5	271.2
25.0	272.4
27.5	272.4
30.0	272.4
32.5	271.2
35.0	270.0
37.5	268.8
40.0	265.2
42.5	261.6
45.0	256.8
47.5	252.0
50.0	244.8
52.5	237.6
55.0	230.4
57.5	220.8
60.0	212.4
62.5	201.6
65.0	190.8
67.5	180.0
70.0	169.2
72.5	157.2
75.0	145.2
77.5	134.4
80.0	123.6
82.5	114.0
85.0	104.4
87.5	94.8
90.0	87.6
92.5	80.4
95.0	73.2
97.5	67.2
100.0	62.4
102.5	57.6
105.0	54.0
107.5	49.2
110.0	45.6
112.5	43.2
115.0	39.6
117.5	37.2
120.0	33.6
122.5	31.2
125.0	28.8
127.5	26.4
130.0	24.0
132.5	20.4

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CANDELA TABULATION - (Cont.)

135.0	18.0
137.5	15.6
140.0	14.4
142.5	12.0
145.0	9.6
147.5	7.2
150.0	6.0
152.5	3.6
155.0	2.4
157.5	1.2
160.0	0.0
162.5	0.0
165.0	0.0
167.5	0.0
170.0	0.0
172.5	0.0
175.0	0.0
177.5	0.0
180.0	0.0

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	100.26	N.A.	6.80
0-30	226.04	N.A.	15.30
0-40	395.39	N.A.	26.70
0-60	799.19	N.A.	53.90
0-80	1142.38	N.A.	77.10
0-90	1256.57	N.A.	84.80
10-90	1231.59	N.A.	83.10
20-40	295.13	N.A.	19.90
20-50	493.45	N.A.	33.30
40-70	592.92	N.A.	40.00
60-80	343.19	N.A.	23.20
70-80	154.07	N.A.	10.40
80-90	114.19	N.A.	7.70
90-110	137.59	N.A.	9.30
90-120	177.27	N.A.	12.00
90-130	203.19	N.A.	13.70
90-150	223.70	N.A.	15.10
90-180	224.96	N.A.	15.20
110-180	87.36	N.A.	5.90
0-180	1481.52	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	24.97
10-20	75.29
20-30	125.78
30-40	169.35
40-50	198.32
50-60	205.48
60-70	189.12
70-80	154.07
80-90	114.19
90-100	80.72
100-110	56.87
110-120	39.68
120-130	25.92
130-140	14.27
140-150	6.23
150-160	1.25
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	115	115	115	115	111	111	111	111	103	103	103	95	95	95	88	88	88	85
1	102	96	90	85	97	92	87	82	85	81	77	78	75	72	72	69	67	64
2	91	81	73	66	87	78	71	64	72	66	60	66	61	57	61	57	53	50
3	82	70	61	53	78	67	59	52	62	55	49	57	51	46	53	48	43	40
4	75	61	51	44	71	59	50	43	54	47	41	50	44	38	46	41	36	33
5	68	54	44	37	65	52	43	36	48	40	34	44	38	33	41	35	31	28
6	63	48	39	32	60	46	37	31	43	35	29	40	33	28	37	31	27	24
7	58	43	34	27	55	42	33	27	39	31	26	36	29	24	33	28	23	21
8	53	39	30	24	51	38	29	24	35	28	23	33	26	21	30	25	20	18
9	50	36	27	21	48	35	26	21	32	25	20	30	24	19	28	22	18	16
10	47	33	25	19	44	32	24	19	30	23	18	28	22	17	26	20	16	14

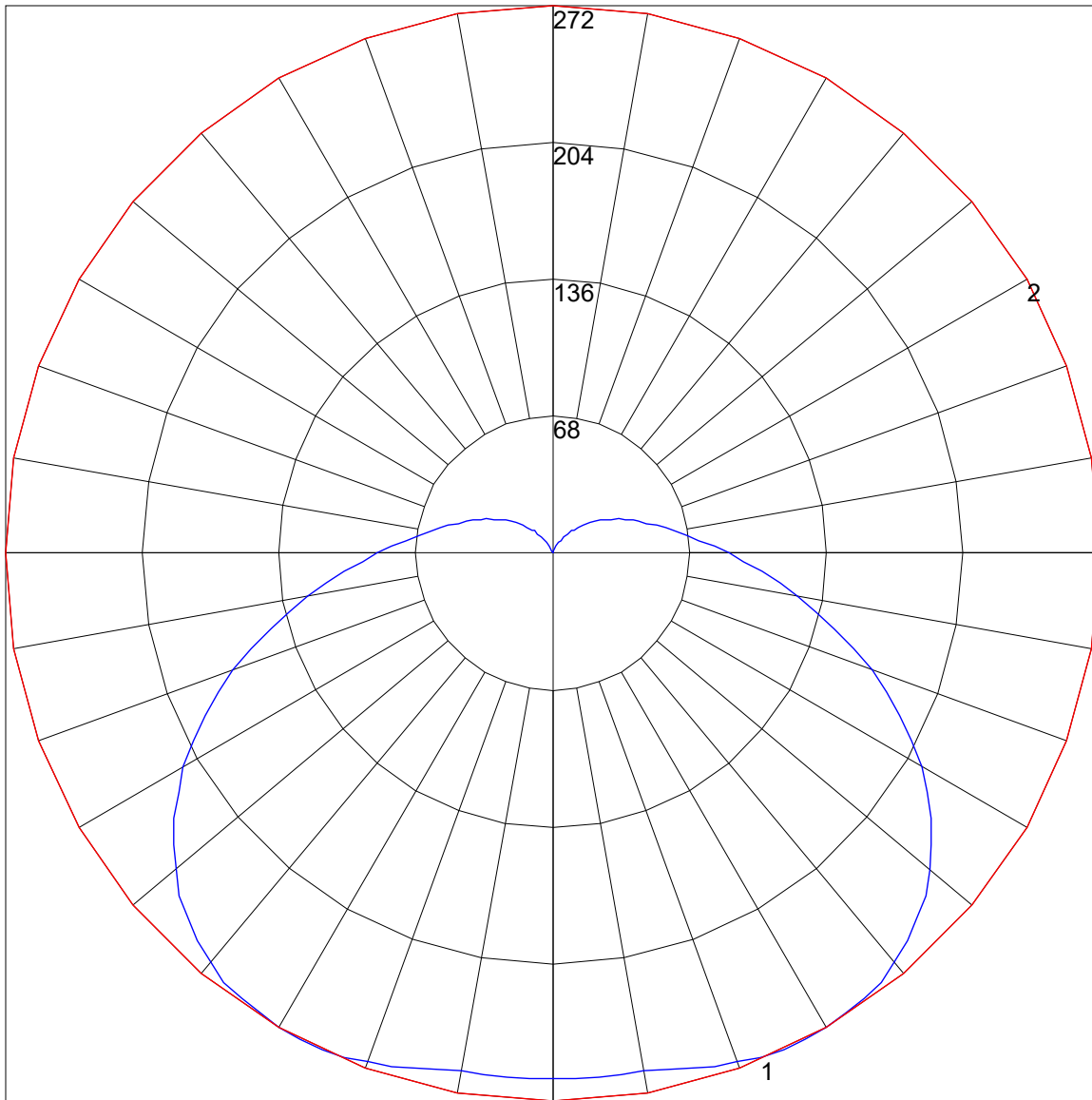
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UGR TABLE - CORRECTED

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					UGR Viewed Endwise				
X=2H	Y=2H	23.3	24.8	23.9	25.4	26.0	23.3	24.8	23.9	25.4	26.0
	3H	25.5	26.8	26.1	27.4	28.1	25.5	26.8	26.1	27.4	28.1
	4H	26.4	27.7	27.1	28.3	29.0	26.4	27.7	27.1	28.3	29.0
	6H	27.3	28.5	27.9	29.1	29.9	27.3	28.5	27.9	29.1	29.9
	8H	27.7	28.9	28.3	29.5	30.2	27.7	28.9	28.3	29.5	30.2
	12H	28.1	29.2	28.7	29.8	30.6	28.1	29.2	28.7	29.8	30.6
4H	2H	24.0	25.2	24.6	25.8	26.5	24.0	25.2	24.6	25.8	26.5
	3H	26.3	27.4	27.0	28.1	28.8	26.3	27.4	27.0	28.1	28.8
	4H	27.4	28.4	28.1	29.1	29.9	27.4	28.4	28.1	29.1	29.9
	6H	28.5	29.4	29.1	30.1	30.8	28.5	29.4	29.1	30.1	30.8
	8H	28.9	29.8	29.6	30.5	31.3	28.9	29.8	29.6	30.5	31.3
	12H	29.4	30.2	30.1	30.9	31.7	29.4	30.2	30.1	30.9	31.7
8H	4H	27.8	28.7	28.5	29.3	30.1	27.8	28.7	28.5	29.3	30.1
	6H	29.0	29.8	29.7	30.5	31.3	29.0	29.8	29.7	30.5	31.3
	8H	29.6	30.3	30.3	31.0	31.8	29.6	30.3	30.3	31.0	31.8
	12H	30.2	30.8	30.9	31.6	32.4	30.2	30.8	30.9	31.6	32.4
12H	4H	27.9	28.7	28.6	29.4	30.2	27.9	28.7	28.6	29.4	30.2
	6H	29.2	29.8	29.9	30.5	31.4	29.2	29.8	29.9	30.5	31.4
	8H	29.8	30.4	30.5	31.1	32.0	29.8	30.4	30.5	31.1	32.0

Maximum UGR = 32.4

POLAR GRAPH



Maximum Candela = 272.4 Located At Horizontal Angle = 0, Vertical Angle = 25
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (25) (Through Max. Cd.)