

IES INDOOR REPORT

PHOTOMETRIC FILENAME : BRH & BRH-WP (8 LED SQ HEAD).IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST]ITL68901

[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.

[ISSUE DATE]06/20/11

[MANUFAC]BEGHELLI

[LUMCAT] EMERGENCY REMOTE HEAD - LED R1 8 LED

[LUMINAIRE] BRH & BRH-WP MOLDED WHITE PLASTIC HOUSING

[MORE]HEAD ASSEMBLIES, EACH HEAD ASSEMBLY CONSISTS OF: MOLDED WHITE

[MORE]PLASTIC HOUSING, ONE CIRCUIT BOARD WITH 8 LEDS, MOLDED

[MORE]PLASTIC REFLECTOR WITH SPECULAR FINISH AND ONE APERTURE PER

[MORE]LED, CLEAR PRISMATIC PLASTIC LENS. ONLY ONE HEAD ASSEMBLY

[MORE]ENERGIZED FOR THIS TEST.

[LAMP]EIGHT WHITE LIGHT EMITTING DIODES (LEDs) EACH WITH CLEAR

[MORE]CYLINDRICAL INTEGRAL LENS WITH HEMISPHERICAL END, VERTICAL

[MORE]BASE-UP POSITION.

[OTHER]TOTAL INPUT WATTS = 0.549 AT 3.60 VOLTS DC

[MOUNTING]SURFACE

[NOTE]DATA SHOWN IS ABSOLUTE FOR THE SAMPLE PROVIDED AT CLIENT

[MORE]REQUESTED INPUT VOLTAGE (3.6VDC) TO THE LAMP ASSEMBLY.

[OTHER]TEST PROCEDURE: IESNA LM-79-08

[OTHER]TEST DISTANCE = 25.25 FEET

[ABSOLUTE]LUMENS]44.6

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	45
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	81
Total Luminaire Watts	0.549
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.70
Spacing Criterion (90-270)	0.72
Spacing Criterion (Diagonal)	0.78
Basic Luminous Shape	Rectangular w/Sides
Luminous Length (0-180)	0.29 ft
Luminous Width (90-270)	0.29 ft
Luminous Height	0.04 ft

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LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	266	342	829
55	110	120	311
65	69	83	183
75	64	56	96
85	0	44	110

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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	68.9	68.9	68.9	68.9	68.9
0.5	68.9	68.9	68.9	68.8	68.7
1.0	70.9	70.7	69.6	68.6	68.2
1.5	73.6	72.7	70.4	68.2	67.3
2.0	75.7	74.4	71.1	67.9	66.3
2.5	76.5	74.8	71.3	67.3	64.9
3.0	75.7	73.8	70.7	66.5	63.5
3.5	74.1	72.0	69.5	66.0	62.7
4.0	72.0	70.2	68.3	65.9	62.5
4.5	70.6	68.8	67.3	66.0	62.7
5.0	69.9	68.0	66.5	66.4	62.9
5.5	69.4	67.5	66.0	66.8	63.1
6.0	69.2	67.5	65.6	67.2	63.4
6.5	69.2	67.2	65.2	67.6	64.0
7.0	69.1	67.0	65.0	68.3	65.0
7.5	68.6	66.6	64.9	69.0	66.2
8.0	67.8	65.5	64.8	69.4	66.9
8.5	66.4	64.3	64.7	69.4	67.8
9.0	64.8	62.7	64.6	69.3	68.5
9.5	63.4	61.0	64.5	69.0	68.8
10.0	61.7	59.3	64.2	68.2	68.7
11.0	57.8	56.0	63.0	66.0	66.5
12.0	53.4	51.8	61.4	63.5	63.4
13.0	49.8	47.6	59.2	61.1	60.6
14.0	47.5	44.4	56.9	59.1	58.9
15.0	46.9	42.5	53.6	58.3	57.2
16.0	46.1	42.0	50.0	57.4	55.8
17.0	43.8	41.3	46.0	55.5	52.3
18.0	41.6	39.6	41.5	52.5	47.9
19.0	40.7	38.1	37.7	48.4	43.5
20.0	38.3	36.9	35.1	43.5	38.8
22.5	28.7	31.5	33.3	32.6	29.4
25.0	21.2	24.2	31.1	24.2	25.1
27.5	15.3	16.6	27.5	20.6	24.6
30.0	12.1	12.4	20.4	19.9	21.6
32.5	11.0	9.8	12.8	17.5	16.9
35.0	11.5	8.1	9.1	14.4	14.2
37.5	8.1	7.8	6.6	11.1	13.5
40.0	4.2	6.3	4.9	9.8	10.5
42.5	2.1	3.9	3.4	9.2	8.7
45.0	1.7	1.8	2.3	6.9	5.3
47.5	1.0	1.5	1.8	4.5	4.0
50.0	0.9	1.0	1.2	2.6	3.6
52.5	0.7	0.8	0.9	1.9	2.8
55.0	0.6	0.7	0.7	1.2	1.7
57.5	0.5	0.6	0.6	0.9	1.2
60.0	0.4	0.5	0.5	0.8	1.0
62.5	0.4	0.4	0.5	0.7	0.9
65.0	0.3	0.4	0.4	0.6	0.8
67.5	0.3	0.3	0.4	0.5	0.8
70.0	0.2	0.3	0.3	0.4	0.7
72.5	0.2	0.2	0.3	0.3	0.4
75.0	0.2	0.2	0.2	0.3	0.3
77.5	0.1	0.2	0.2	0.2	0.3

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CANDELA TABULATION - (Cont.)

80.0	0.1	0.2	0.2	0.2	0.2
82.5	0.0	0.1	0.1	0.2	0.2
85.0	0.0	0.1	0.1	0.1	0.2
87.5	0.0	0.0	0.1	0.1	0.1
90.0	0.0	0.0	0.0	0.1	0.1
92.5	0.0	0.0	0.0	0.0	0.1
95.0	0.0	0.0	0.0	0.0	0.0
97.5	0.0	0.0	0.0	0.0	0.0
100.0	0.0	0.0	0.0	0.0	0.0
102.5	0.0	0.0	0.0	0.0	0.0
105.0	0.0	0.0	0.0	0.0	0.0
107.5	0.0	0.0	0.0	0.0	0.0
110.0	0.0	0.0	0.0	0.0	0.0
115.0	0.0	0.0	0.0	0.0	0.0
120.0	0.0	0.0	0.0	0.0	0.0
125.0	0.0	0.0	0.0	0.0	0.0
130.0	0.0	0.0	0.0	0.0	0.0
135.0	0.0	0.0	0.0	0.0	0.0
140.0	0.0	0.0	0.0	0.0	0.0
145.0	0.0	0.0	0.0	0.0	0.0
150.0	0.0	0.0	0.0	0.0	0.0
155.0	0.0	0.0	0.0	0.0	0.0
160.0	0.0	0.0	0.0	0.0	0.0
165.0	0.0	0.0	0.0	0.0	0.0
170.0	0.0	0.0	0.0	0.0	0.0
175.0	0.0	0.0	0.0	0.0	0.0
180.0	0.0	0.0	0.0	0.0	0.0

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	20.66	N.A.	46.30
0-30	32.69	N.A.	73.20
0-40	39.78	N.A.	89.10
0-60	43.78	N.A.	98.10
0-80	44.53	N.A.	99.70
0-90	44.63	N.A.	100.00
10-90	38.25	N.A.	85.70
20-40	19.12	N.A.	42.80
20-50	22.18	N.A.	49.70
40-70	4.48	N.A.	10.00
60-80	0.75	N.A.	1.70
70-80	0.26	N.A.	0.60
80-90	0.11	N.A.	0.20
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	44.64	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	6.39
10-20	14.28
20-30	12.03
30-40	7.10
40-50	3.06
50-60	0.93
60-70	0.49
70-80	0.26
80-90	0.11
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

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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	118	118	118	118	115	115	115	115	110	110	110	106	106	106	101	101	101	99
1	113	110	107	105	110	108	105	103	104	102	100	100	98	97	96	95	94	93
2	107	102	98	95	105	100	97	94	97	94	92	94	92	90	92	90	88	86
3	102	95	91	87	100	94	90	86	91	88	85	89	86	83	87	84	82	80
4	97	89	84	80	95	88	83	79	86	82	79	84	81	78	82	79	77	75
5	92	84	78	74	91	83	78	74	81	77	73	80	76	73	78	75	72	71
6	88	79	73	69	86	78	73	69	77	72	69	76	71	68	74	71	68	66
7	84	75	69	65	83	74	69	65	73	68	65	72	67	64	71	67	64	62
8	80	71	65	61	79	70	65	61	69	64	61	68	64	61	67	63	60	59
9	77	67	62	58	75	67	61	58	66	61	58	65	61	57	64	60	57	56
10	73	64	59	55	72	64	58	55	63	58	55	62	58	54	61	57	54	53

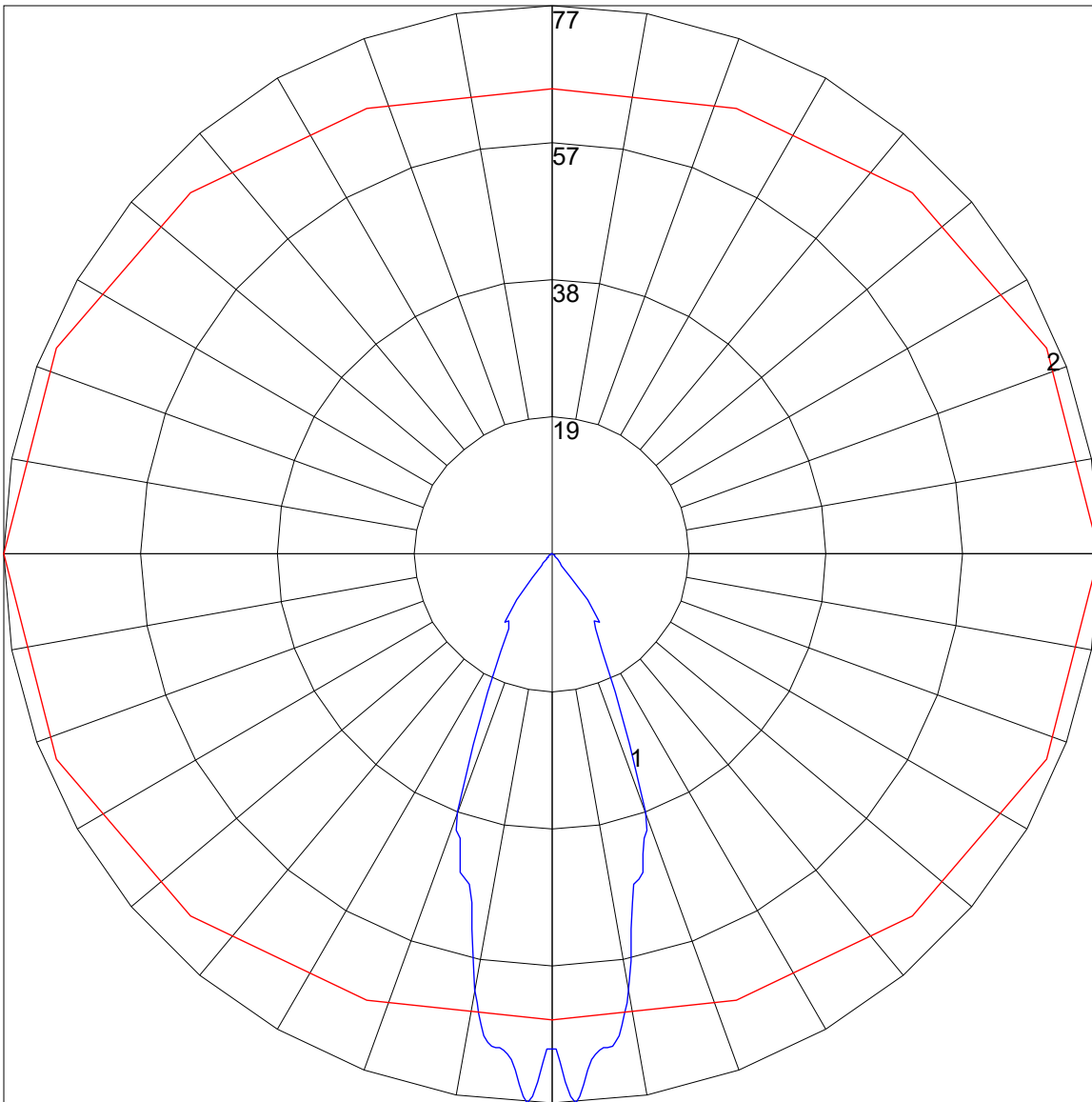
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UGR TABLE - CORRECTED

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	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.1	1.1	1.4
	3H	0.0	0.0	0.0	0.0	0.0	1.4	2.3	1.8	2.6	3.0
	4H	0.0	0.0	0.0	0.0	0.0	1.7	2.6	2.1	2.9	3.3
	6H	0.0	0.0	0.0	0.0	0.0	2.0	2.7	2.4	3.1	3.5
	8H	0.0	0.0	0.0	0.0	0.0	2.1	2.8	2.5	3.2	3.6
	12H	0.0	0.0	0.0	0.0	0.0	2.3	2.9	2.7	3.3	3.8
4H	2H	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.1	0.9	1.3
	3H	0.0	0.0	0.0	0.0	0.0	1.5	2.2	1.9	2.6	3.0
	4H	0.0	0.0	0.0	0.0	0.0	1.9	2.5	2.4	3.0	3.4
	6H	0.0	0.0	0.0	0.0	0.3	2.3	2.8	2.8	3.3	3.7
	8H	0.0	0.0	0.0	0.0	0.3	2.5	3.0	3.0	3.4	3.9
	12H	0.0	0.0	0.0	0.0	0.2	2.7	3.1	3.2	3.6	4.1
8H	4H	0.0	0.0	0.0	0.0	0.1	1.9	2.4	2.4	2.8	3.3
	6H	0.0	0.0	0.0	0.3	0.7	2.4	2.8	2.9	3.3	3.8
	8H	0.0	0.0	0.0	0.3	0.8	2.7	3.0	3.2	3.5	4.0
	12H	0.0	0.0	0.0	0.3	0.9	3.0	3.3	3.5	3.8	4.4
12H	4H	0.0	0.0	0.0	0.0	0.1	1.9	2.3	2.4	2.8	3.3
	6H	0.0	0.0	0.0	0.3	0.8	2.4	2.7	2.9	3.2	3.7
	8H	0.0	0.0	0.1	0.4	0.9	2.7	3.0	3.2	3.5	4.1

Maximum UGR = 4.4

POLAR GRAPH



Maximum Candela = 76.5 Located At Horizontal Angle = 0, Vertical Angle = 2.5

1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)

2 - Horizontal Cone Through Vertical Angle (2.5) (Through Max. Cd.)