



8165 E. Kaiser Blvd. Anaheim, CA 92808
www.lightlaboratory.com

Photometric Test Report

IES INDOOR REPORT
PHOTOMETRIC FILENAME : L122112404.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] L122112404
[TESTLAB] LIGHT LABORATORY, INC. (www.lightlaboratory.com)
[ISSUEDATE] 1/7/2022
[MANUFAC] BARTCO LIGHTING, INC.
[LUMCAT] HCB12-4-BS35-ND-1-NA-R-NA-C-C4-SN-AW
[LUMINAIRE] Swell 2" x 3-1/2" Direct/Indirect Luminaire, 44-5/8" O.A., BIOS Static 3500K, Non-Dimming Driver, Single Circuit, NA
[BALLASTCAT] CUSTOM
[OTHER] INDICATING THE CANDELA VALUES ARE ABSOLUTE AND
[MORE] SHOULD NOT BE FACTORED FOR DIFFERENT LAMP RATINGS.
[INPUT] 120 VAC
[TEST PROCEDURE] IESNA:LM-79-08

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	2643
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	88
Total Luminaire Watts	30.11
Ballast Factor	1.00
CIE Type	Semi-Direct
Spacing Criterion (0-180)	1.38
Spacing Criterion (90-270)	1.22
Spacing Criterion (Diagonal)	1.46
Basic Luminous Shape	Rectangular w/Sides
Luminous Length (0-180)	3.73 ft
Luminous Width (90-270)	0.17 ft
Luminous Height	0.08 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	11552	8096	6230
55	12250	7546	5252
65	13658	7032	4194
75	17169	6528	3019
85	33130	6178	1586

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	229.84	N.A.	8.70
0-30	492.63	N.A.	18.60
0-40	815.00	N.A.	30.80
0-60	1495.85	N.A.	56.60
0-80	2023.98	N.A.	76.60
0-90	2186.45	N.A.	82.70
10-90	2127.67	N.A.	80.50
20-40	585.16	N.A.	22.10
20-50	931.03	N.A.	35.20
40-70	975.64	N.A.	36.90
60-80	528.13	N.A.	20.00
70-80	233.34	N.A.	8.80
80-90	162.47	N.A.	6.10
90-110	212.72	N.A.	8.00
90-120	295.54	N.A.	11.20
90-130	360.30	N.A.	13.60
90-150	435.18	N.A.	16.50
90-180	456.35	N.A.	17.30
110-180	243.63	N.A.	9.20
0-180	2642.8	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	58.79
10-20	171.05
20-30	262.79
30-40	322.37
40-50	345.87
50-60	334.98
60-70	294.79
70-80	233.34
80-90	162.47
90-100	113.79
100-110	98.92
110-120	82.83
120-130	64.76
130-140	46.13
140-150	28.75
150-160	14.86
160-170	5.50
170-180	0.80

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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	115	110	110	110	110	102	102	102	94	94	94	86	86	86	83
1	102	97	92	87	87	98	93	88	84	85	82	78	78	75	73	72	70	68	64
2	92	83	75	69	69	88	80	73	67	73	68	63	67	63	59	62	58	55	52
3	84	72	63	56	56	80	69	61	55	64	57	52	59	53	49	54	49	46	43
4	76	64	54	47	47	72	61	53	46	56	49	43	52	46	41	48	43	39	36
5	70	56	47	40	40	66	54	46	39	50	43	37	46	40	35	43	38	33	31
6	64	51	41	35	35	61	49	40	34	45	38	32	42	35	31	39	33	29	27
7	60	46	37	30	30	57	44	36	30	41	34	28	38	32	27	35	30	26	23
8	55	42	33	27	27	53	40	32	26	37	30	25	35	29	24	32	27	23	21
9	52	38	30	24	24	49	37	29	24	34	27	23	32	26	22	30	24	21	19
10	48	35	27	22	22	46	34	26	21	32	25	20	30	24	19	28	22	19	17

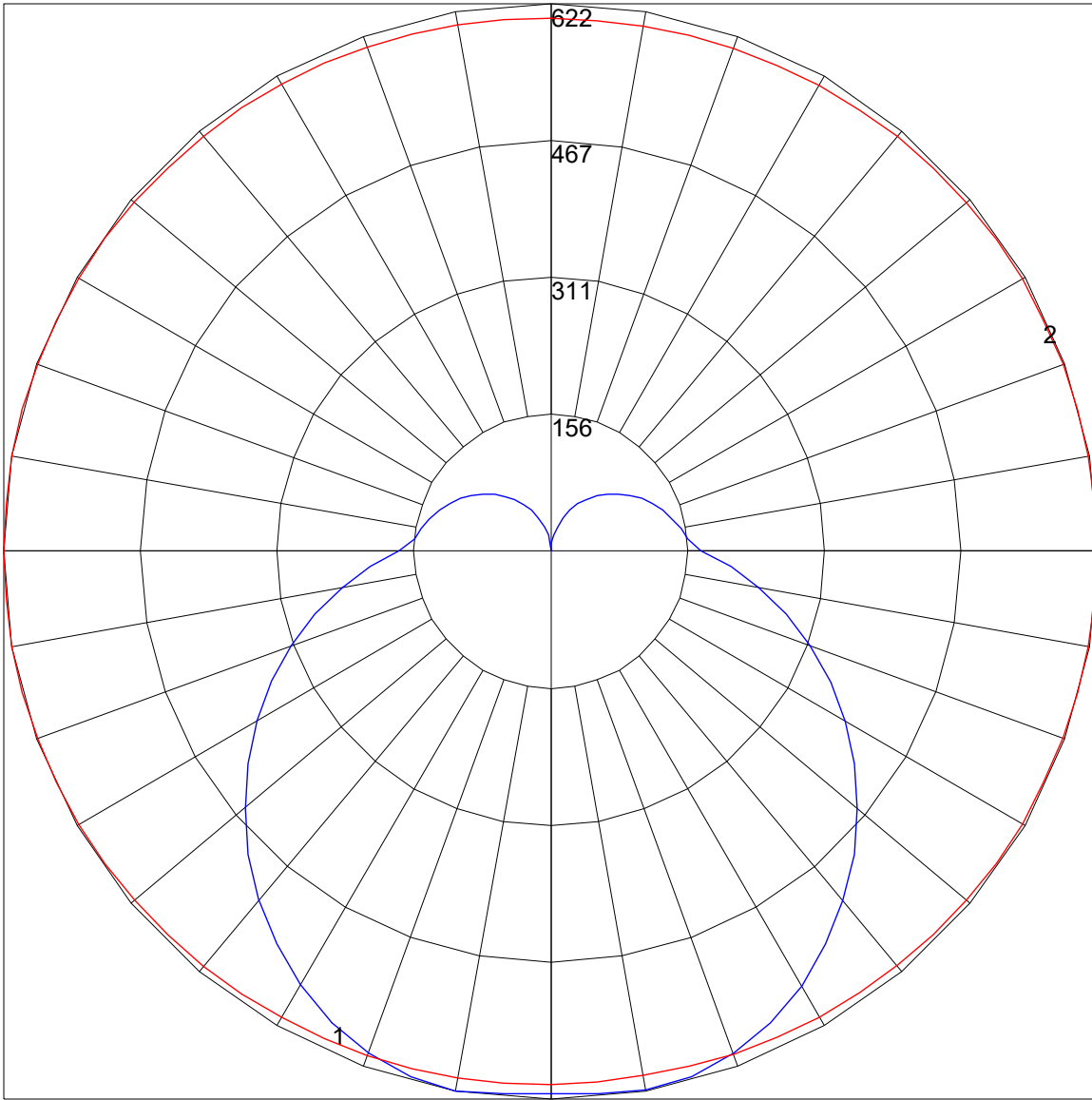
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UGR TABLE - CORRECTED

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	18.2	19.6	18.8	20.2	20.9	17.4	18.8	18.0	19.4	20.1
	3H	20.5	21.7	21.1	22.4	23.1	19.4	20.6	20.0	21.2	22.0
	4H	21.5	22.7	22.1	23.3	24.1	20.1	21.3	20.8	22.0	22.7
	6H	22.5	23.6	23.1	24.2	25.0	20.8	21.9	21.4	22.6	23.3
	8H	22.9	24.0	23.6	24.6	25.4	21.1	22.1	21.7	22.8	23.6
	12H	23.3	24.3	24.0	25.0	25.8	21.3	22.3	22.0	23.0	23.8
4H	2H	18.8	20.0	19.5	20.7	21.4	18.2	19.4	18.9	20.1	20.8
	3H	21.3	22.4	22.0	23.0	23.8	20.4	21.4	21.0	22.1	22.9
	4H	22.5	23.5	23.2	24.2	25.0	21.3	22.3	22.0	23.0	23.8
	6H	23.7	24.5	24.4	25.2	26.0	22.2	23.0	22.8	23.7	24.5
	8H	24.2	25.0	24.9	25.7	26.5	22.5	23.3	23.2	24.0	24.8
	12H	24.7	25.5	25.4	26.2	27.0	22.8	23.5	23.5	24.2	25.1
8H	4H	22.9	23.7	23.6	24.4	25.2	21.9	22.7	22.6	23.4	24.2
	6H	24.3	24.9	25.0	25.7	26.5	22.9	23.6	23.6	24.3	25.2
	8H	24.9	25.6	25.7	26.3	27.1	23.4	24.0	24.1	24.7	25.6
	12H	25.6	26.2	26.4	26.9	27.8	23.8	24.4	24.6	25.1	26.0
12H	4H	23.0	23.7	23.7	24.4	25.2	22.0	22.7	22.7	23.5	24.3
	6H	24.4	25.0	25.1	25.7	26.6	23.1	23.7	23.9	24.5	25.3
	8H	25.1	25.7	25.9	26.4	27.3	23.7	24.2	24.4	25.0	25.9

Maximum UGR = 27.8

POLAR GRAPH



Maximum Candela = 622 Located At Horizontal Angle = 165, Vertical Angle = 10
1 - Vertical Plane Through Horizontal Angles (165 - 345) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (10) (Through Max. Cd.)