



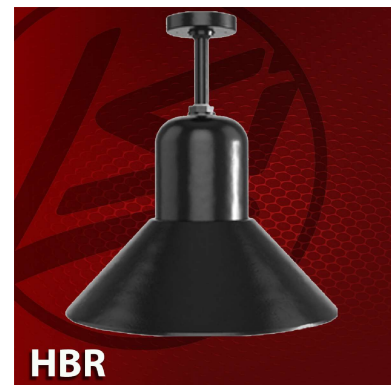
IES INDOOR REPORT
PHOTOMETRIC FILENAME : HBR-12L-27-GWT.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] LED-11927
 [TESTLAB] LSI INDUSTRIES, INC.
 [ISSUE DATE] 7/31/2020
 [TEST DATE] 06/16/20
 [MANUFACT] LSI INDUSTRIES, INC.
 [LUMCAT] HBR-12L-27-GWT
 [OTHER] TEST PROCEDURE: IESNA LM-79-08
 [ABSOLUTE] NOTE: DATA SHOWN IS ABSOLUTE FOR THE SAMPLE PROVIDED
 [OTHER] SCALED FROM ORIGINAL TEST DATA
 [SEARCH_SOURCETYPE] LED
 [SEARCH_APPLICATION] Indoor
 [SEARCH_APPLICATION] Outdoor

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	1156
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	124
Total Luminaire Watts	9.3
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.30
Spacing Criterion (90-270)	1.30
Spacing Criterion (Diagonal)	1.38
Basic Luminous Shape	Circular
Luminous Length (0-180)	0.29 ft (Diameter)
Luminous Width (90-270)	0.29 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	72839	72156	71701
55	67066	65383	65663
65	13330	13330	13710
75	9950	9950	9950
85	11080	11080	11080

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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	483	483	483	483	483
2.5	484	483	484	483	484
5.0	483	483	483	483	483
7.5	483	484	483	483	483
10.0	483	483	483	483	483
12.5	482	482	481	481	481
15.0	481	481	480	480	480
17.5	479	479	478	478	478
20.0	477	476	476	475	475
22.5	475	474	473	472	472
25.0	473	472	471	470	471
27.5	467	467	464	463	463
30.0	445	445	444	443	444
32.5	413	413	413	413	414
35.0	393	393	392	392	393
37.5	376	376	374	373	374
40.0	359	358	356	355	357
42.5	340	340	336	334	335
45.0	320	320	317	314	315
47.5	301	301	297	293	296
50.0	281	281	277	273	276
52.5	261	261	256	252	256
55.0	239	238	233	230	234
57.5	203	204	199	197	201
60.0	114	116	118	117	120
62.5	50	50	51	51	52
65.0	35	35	35	35	36
67.5	25	25	25	25	25
70.0	22	22	22	22	22
72.5	19	19	19	19	19
75.0	16	17	16	16	16
77.5	13	13	13	13	13
80.0	10	10	10	10	10
82.5	8	8	8	8	8
85.0	6	6	6	6	6
87.5	4	4	4	3	3
90.0	0	1	1	1	1
92.5	0	0	0	0	0
95.0	0	0	0	0	0
97.5	0	0	0	0	0
100.0	0	0	0	0	0
102.5	0	0	0	0	0
105.0	0	0	0	0	0
107.5	0	0	0	0	0
110.0	0	0	0	0	0
112.5	0	0	0	0	0
115.0	0	0	0	0	0
117.5	0	0	0	0	0
120.0	0	0	0	0	0
122.5	0	0	0	0	0
125.0	0	0	0	0	0
127.5	0	0	0	0	0
130.0	0	0	0	0	0
132.5	0	0	0	0	0

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CANDELA TABULATION - (Cont.)

135.0	0	0	0	0	0
137.5	0	0	0	0	0
140.0	0	0	0	0	0
142.5	0	0	0	0	0
145.0	0	0	0	0	0
147.5	0	0	0	0	0
150.0	0	0	0	0	0
152.5	0	0	0	0	0
155.0	0	0	0	0	0
157.5	0	0	0	0	0
160.0	0	0	0	0	0
162.5	0	0	0	0	0
165.0	0	0	0	0	0
167.5	0	0	0	0	0
170.0	0	0	0	0	0
172.5	0	0	0	0	0
175.0	0	0	0	0	0
177.5	0	0	0	0	0
180.0	0	0	0	0	0

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	182.05	N.A.	15.80
0-30	397.99	N.A.	34.40
0-40	645.19	N.A.	55.80
0-60	1088.12	N.A.	94.20
0-80	1149.32	N.A.	99.40
0-90	1155.6	N.A.	100.00
10-90	1109.48	N.A.	96.00
20-40	463.14	N.A.	40.10
20-50	707.89	N.A.	61.30
40-70	487.19	N.A.	42.20
60-80	61.21	N.A.	5.30
70-80	16.95	N.A.	1.50
80-90	6.28	N.A.	0.50
90-110	0.12	N.A.	0.00
90-120	0.12	N.A.	0.00
90-130	0.12	N.A.	0.00
90-150	0.12	N.A.	0.00
90-180	0.12	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	1155.72	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	46.12
10-20	135.93
20-30	215.93
30-40	247.21
40-50	244.75
50-60	198.18
60-70	44.26
70-80	16.95
80-90	6.28
90-100	0.12
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

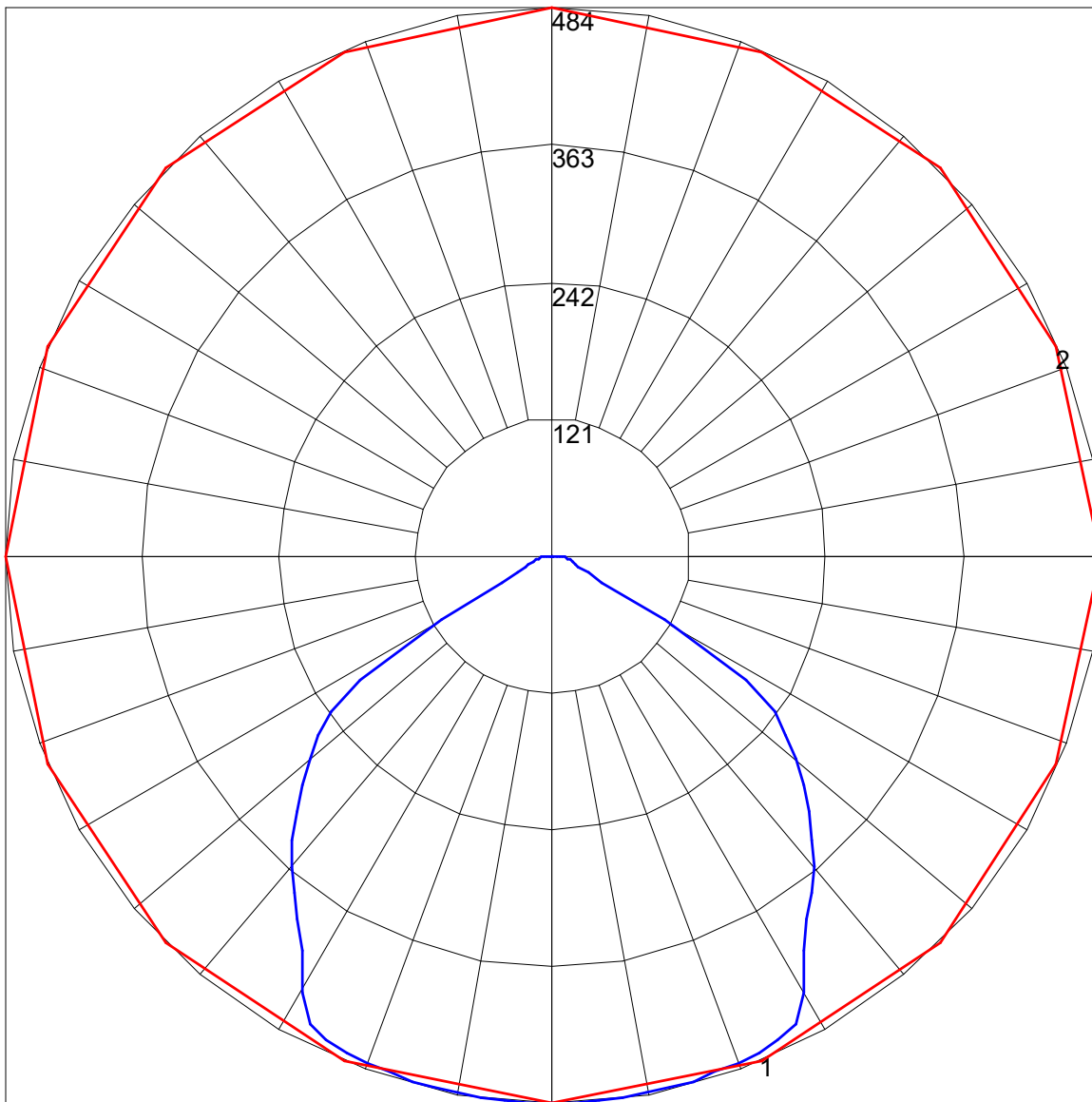
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	88
2	103	96	90	85	100	94	89	84	91	86	82	87	84	81	84	81	79	77
3	95	86	79	73	92	84	78	72	81	76	71	79	74	70	76	72	69	67
4	87	77	69	63	85	76	68	63	73	67	62	71	66	61	69	64	60	58
5	81	69	61	55	79	68	61	55	66	60	54	64	58	54	63	57	53	51
6	75	63	55	49	73	62	54	49	60	53	48	58	52	48	57	52	47	45
7	70	57	49	43	68	56	49	43	55	48	43	53	47	43	52	47	42	40
8	65	52	44	39	63	52	44	39	50	43	39	49	43	38	48	42	38	36
9	61	48	40	35	59	47	40	35	46	40	35	45	39	35	44	39	34	33
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	35	31	30

POLAR GRAPH



Maximum Candela = 484 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.)