IES INDOOR REPORT
PHOTOMETRIC FILENAME : 76R-4-L52-835-EM10W-DIM-UNV (EMER MODE)_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] GEN FROM BALLABS TEST NO. 20990.0
[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC
[ISSUEDATE] 08-31-2023
[MANUFAC] WILLIAMS INDOOR
[OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO
[LUMINAIRE] 4' LENSED LED STRIP LUMINAIRE
[MORE] WHITE REFLECTOR w/ FROST ACRYLIC LENS
[LUMCAT] 76R-4-L52-835-EM10W-DIM-UNV (EMER MODE)
[LAMPCAT] HLMX 80 CRI 3500K CCT

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	1430
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	143
Total Luminaire Watts	10
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.20
Spacing Criterion (90-270)	1.28
Spacing Criterion (Diagonal)	1.36
Basic Luminous Shape	Rectangular w/Sides
Luminous Length (0-180)	3.98 ft
Luminous Width (90-270)	0.38 ft
Luminous Height	0.15 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	2502	2293	2353
55	2133	1987	2092
65	1716	1646	1811
75	1331	1396	1565
85	625	1258	1457

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	461.731	461.731	461.731	461.731	461.731
5	465.602	459.497	458.306	458.306	456.966
10	457.115	451.904	452.201	453.393	451.904
15	441.779	437.758	441.034	444.608	444.161
20	421.975	420.337	425.698	432.249	432.547
25	394.578	396.365	406.043	414.679	416.913
30	365.692	368.819	382.666	393.834	398.152
35	329.659	336.955	355.269	369.861	374.924
40	295.264	303.155	325.192	345.591	350.356
45	254.466	265.931	292.732	314.769	320.725
50	216.348	230.493	259.826	284.096	290.648
55	178.677	192.524	226.175	251.339	259.081
60	142.941	158.576	193.120	216.348	225.133
65	108.546	125.074	158.874	188.504	194.907
70	80.107	94.699	130.136	158.874	166.467
75	54.348	70.577	106.462	132.221	137.879
80	30.226	50.030	85.169	108.546	116.587
85	10.721	33.800	67.599	89.338	96.039
90	0.000	22.335	52.710	74.002	78.320
95	0.000	14.294	41.542	60.601	67.153
100	0.000	9.529	31.864	50.178	55.390
105	0.000	6.403	25.164	40.500	46.307
110	0.000	2.978	19.952	33.204	38.713
115	0.000	1.936	15.932	27.993	31.864
120	0.000	0.000	12.656	22.930	26.950
125	0.000	0.000	9.827	18.314	21.441
130	0.000	0.000	7.743	14.443	17.123
135	0.000	0.000	6.254	11.167	13.699
140	0.000	0.000	3.276	8.487	10.423
145	0.000	0.000	1.191	6.551	7.594
150	0.000	0.000	0.000	5.658	6.403
155	0.000	0.000	0.000	5.360	5.658
160	0.000	0.000	0.000	3.127	5.211
165	0.000	0.000	0.000	1.042	1.787
170	0.000	0.000	0.000	0.000	0.000
175	0.000	0.000	0.000	0.000	0.000
180	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	168.25	N.A.	11.80
0-30	355.18	N.A.	24.80
0-40	576.56	N.A.	40.30
0-60	999.93	N.A.	69.90
0-80	1263.13	N.A.	88.30
0-90	1330.85	N.A.	93.10
10-90	1287.2	N.A.	90.00
20-40	408.31	N.A.	28.60
20-50	632.65	N.A.	44.20
40-70	578.62	N.A.	40.50
60-80	263.20	N.A.	18.40
70-80	107.95	N.A.	7.50
80-90	67.72	N.A.	4.70
90-110	66.95	N.A.	4.70
90-120	82.37	N.A.	5.80
90-130	91.24	N.A.	6.40
90-150	97.87	N.A.	6.80
90-180	98.96	N.A.	6.90
110-180	32.01	N.A.	2.20
0-180	1429.81	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	43.65
10-20	124.60
20-30	186.93
30-40	221.38
40-50	224.35
50-60	199.02
60-70	155.25
70-80	107.95
80-90	67.72
90-100	41.44
100-110	25.50
110-120	15.43
120-130	8.86
130-140	4.69
140-150	1.94
150-160	0.90
160-170	0.19
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	117	117	117	117	114	114	114	114	107	107	107	101	101	101	96	96	96	93
1	106	101	96	92	102	98	93	90	92	89	85	87	84	82	82	80	78	75
2	96	87	80	74	93	85	78	73	80	75	70	76	71	67	72	68	65	62
3	87	77	68	61	84	74	67	60	70	64	58	67	61	57	63	59	55	52
4	80	68	59	52	77	66	58	51	63	55	50	59	53	48	57	51	47	45
5	74	61	51	45	71	59	51	44	56	49	43	53	47	42	51	45	41	39
6	68	55	46	39	66	53	45	39	51	43	38	48	42	37	46	40	36	34
7	63	49	41	34	61	48	40	34	46	39	33	44	38	33	42	36	32	30
8	59	45	37	31	57	44	36	30	42	35	30	40	34	29	39	33	29	27
9	55	41	33	28	53	41	33	27	39	32	27	37	31	26	36	30	26	24
10	51	38	30	25	50	37	30	25	36	29	24	35	28	24	33	28	24	22

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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	12.1	13.6	12.5	14.0	14.5	15.1	16.6	15.6	17.0	17.5
	3H	13.3	14.6	13.8	15.1	15.6	17.3	18.7	17.8	19.2	19.7
	4H	13.7	15.0	14.2	15.4	16.0	18.4	19.7	18.9	20.2	20.7
	6H	13.9	15.1	14.4	15.6	16.1	19.5	20.7	20.0	21.2	21.7
	8H	13.9	15.1	14.5	15.6	16.2	20.0	21.2	20.6	21.7	22.3
	12H	13.9	15.0	14.5	15.6	16.2	20.7	21.8	21.2	22.3	22.9
4H	2H	13.0	14.3	13.5	14.8	15.3	15.4	16.7	15.9	17.2	17.7
	3H	14.5	15.6	15.0	16.1	16.7	17.9	19.0	18.4	19.5	20.1
	4H	15.0	16.0	15.5	16.5	17.1	19.1	20.1	19.6	20.7	21.3
	6H	15.3	16.2	15.8	16.7	17.4	20.4	21.3	21.0	21.9	22.5
	8H	15.4	16.2	15.9	16.8	17.4	21.1	21.9	21.6	22.5	23.1
	12H	15.4	16.2	16.0	16.8	17.4	21.8	22.6	22.4	23.2	23.8
8H	4H	15.7	16.5	16.3	17.1	17.7	19.3	20.1	19.8	20.7	21.3
	6H	16.2	16.9	16.8	17.5	18.2	20.7	21.4	21.3	22.0	22.7
	8H	16.4	17.0	17.0	17.6	18.3	21.5	22.2	22.1	22.8	23.4
	12H	16.5	17.1	17.1	17.7	18.4	22.5	23.0	23.1	23.6	24.3
12H	4H	15.9	16.7	16.5	17.3	17.9	19.3	20.0	19.9	20.6	21.3
	6H	16.5	17.2	17.2	17.8	18.4	20.8	21.4	21.4	22.0	22.7
	8H	16.8	17.4	17.4	18.0	18.7	21.6	22.2	22.2	22.8	23.5

Maximum UGR = 24.3

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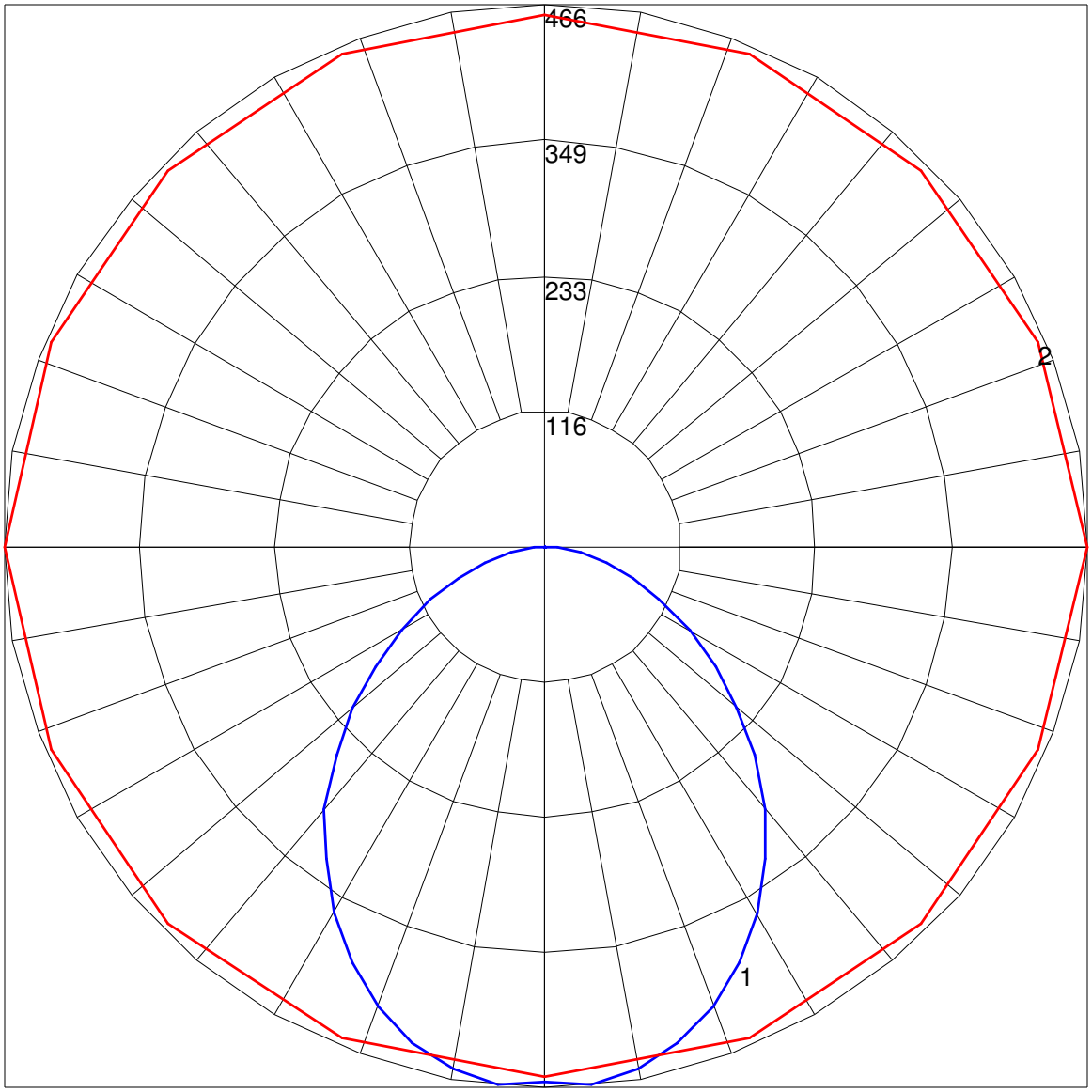
POLAR GRAPH



Maximum Candela = 465.602 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.)

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