



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 29-4-L54-835-AF-CT-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] GEN FROM BALLABS TEST NO. 20309.0
 [TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC
 [ISSUEDATE] 03-17-2020
 [MANUFAC] WILLIAMS INDOOR
 [OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO 64836
 [LUMINAIRE] 2' WALL MNT BED LIGHT w/CLOSED TOP LED
 [MORE] WITH FROSTED BTM PRISMATIC DIFFUSER
 [LUMCAT] 29-2-L54-835-AF-CT-DIM-UNV
 [LAMPCAT] HLM 80 CRI, 3500K CCT
 [_SEARCH_SOURCETYPE] LED
 [_SEARCH_APPLICATION] Indoor, Corridor, Healthcare, Direct
 [_SEARCH_MOUNTING] Wall

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	4703
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	109
Total Luminaire Watts	43
Ballast Factor	1.00
CIE Type	Semi-Direct
Spacing Criterion (0-180)	2.44
Spacing Criterion (90-270)	1.32
Spacing Criterion (Diagonal)	1.62
Basic Luminous Shape	Rectangular w/Sides
Luminous Length (0-180)	0.40 ft
Luminous Width (90-270)	2.00 ft
Luminous Height	0.23 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	23308	18833	11560
55	23783	18608	10431
65	21897	16661	8876
75	19776	13973	7049
85	17642	11638	3892

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 29-4-L54-835-AF-CT-DIM-UNV_.IES

CANDELA TABULATION

	<u>0.0</u>	<u>22.5</u>	<u>45.0</u>	<u>67.5</u>	<u>90.0</u>	<u>112.5</u>	<u>135.0</u>	<u>157.5</u>	<u>180.0</u>
0	978.559	978.559	978.559	978.559	978.559	978.559	978.559	978.559	978.559
5	1082.577	1079.126	1082.577	1026.378	1013.561	939.614	906.092	877.006	843.483
10	1191.525	1181.173	1146.664	1053.492	1003.701	897.711	839.047	796.651	760.170
15	1308.361	1279.768	1215.681	1075.676	980.531	845.948	770.030	714.817	674.392
20	1428.154	1391.181	1279.275	1087.507	954.403	790.242	691.647	630.024	592.558
25	1561.751	1515.904	1340.404	1091.451	916.937	729.606	615.235	549.669	511.217
30	1691.404	1638.162	1397.590	1083.563	870.597	658.617	536.852	470.300	433.327
35	1809.718	1726.898	1442.943	1060.393	811.440	588.121	460.440	393.889	357.408
40	1886.130	1782.112	1464.141	1020.462	745.874	514.668	386.987	320.928	288.391
45	1915.708	1811.197	1461.184	965.742	670.942	439.242	320.928	258.320	226.769
50	1908.314	1789.013	1419.773	895.739	590.586	362.831	253.390	198.177	170.570
55	1834.367	1718.517	1335.967	799.116	512.696	291.842	193.740	143.949	120.779
60	1692.390	1584.921	1211.737	706.929	431.355	224.797	137.048	93.666	72.961
65	1526.749	1423.717	1063.351	584.178	344.098	167.119	87.750	50.777	33.522
70	1349.278	1251.175	909.049	473.258	263.250	104.511	40.424	3.451	0.000
75	1190.539	1073.211	753.269	378.606	191.768	60.636	0.000	0.000	0.000
80	1014.546	905.599	604.883	280.504	119.793	5.423	0.000	0.000	0.000
85	861.724	761.156	492.977	193.740	57.678	0.000	0.000	0.000	0.000
90	740.451	630.517	402.762	123.244	35.494	0.000	0.000	0.000	0.000
95	652.701	560.022	308.111	84.299	36.480	0.000	0.000	0.000	0.000
100	576.290	476.216	271.630	93.173	36.973	0.000	0.000	0.000	0.000
105	502.343	441.214	283.462	104.511	37.959	0.000	0.000	0.000	0.000
110	491.005	431.848	284.941	113.878	41.903	0.000	0.000	0.000	0.000
115	470.793	415.087	280.997	118.807	46.340	0.000	0.000	0.000	0.000
120	398.818	353.957	247.967	115.850	51.763	0.000	0.000	0.000	0.000
125	332.266	304.167	224.797	111.906	55.706	0.000	0.000	0.000	0.000
130	291.842	263.743	206.064	106.483	60.143	0.000	0.000	0.000	0.000
135	254.869	234.164	182.894	100.074	64.580	0.000	0.000	0.000	0.000
140	224.797	205.571	164.161	92.187	67.045	0.000	0.000	0.000	0.000
145	193.740	176.486	142.963	83.313	69.510	0.000	0.000	0.000	0.000
150	165.147	152.330	124.230	75.425	72.961	0.000	0.000	0.000	0.000
155	139.019	127.188	105.990	69.510	74.932	3.944	0.000	0.000	0.000
160	115.357	105.497	90.215	61.129	75.425	9.860	0.000	0.000	0.000
165	92.187	84.299	72.468	54.227	76.904	15.775	0.000	0.000	0.000
170	72.961	66.059	58.171	45.847	77.397	24.156	6.409	0.986	1.479
175	51.763	46.833	43.875	36.973	78.383	31.551	19.226	16.761	15.282
180	36.973	36.973	36.973	36.973	36.973	36.973	36.973	36.973	36.973

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 29-4-L54-835-AF-CT-DIM-UNV_.IES

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	372.80	N.A.	7.90
0-30	823.12	N.A.	17.50
0-40	1415.03	N.A.	30.10
0-60	2753.98	N.A.	58.60
0-80	3715.63	N.A.	79.00
0-90	3983.46	N.A.	84.70
10-90	3889.41	N.A.	82.70
20-40	1042.23	N.A.	22.20
20-50	1715.88	N.A.	36.50
40-70	1896.16	N.A.	40.30
60-80	961.65	N.A.	20.40
70-80	404.44	N.A.	8.60
80-90	267.83	N.A.	5.70
90-110	332.24	N.A.	7.10
90-120	465.11	N.A.	9.90
90-130	562.74	N.A.	12.00
90-150	676.74	N.A.	14.40
90-180	719.40	N.A.	15.30
110-180	387.16	N.A.	8.20
0-180	4702.87	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	94.05
10-20	278.74
20-30	450.33
30-40	591.90
40-50	673.65
50-60	665.30
60-70	557.22
70-80	404.44
80-90	267.83
90-100	182.77
100-110	149.48
110-120	132.87
120-130	97.63
130-140	68.93
140-150	45.06
150-160	26.32
160-170	12.66
170-180	3.69

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 29-4-L54-835-AF-CT-DIM-UNV_.IES

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	103	97	92	88	99	94	89	85	86	83	79	80	77	74	74	71	69	66
2	93	83	76	69	88	80	73	67	74	68	63	68	64	60	63	60	56	53
3	84	72	64	56	80	70	61	55	64	58	52	60	54	49	55	50	46	43
4	76	63	54	47	73	61	52	46	57	49	44	52	46	41	49	43	39	36
5	70	56	47	40	67	54	45	39	50	43	37	47	40	35	43	38	33	31
6	64	50	41	34	61	48	40	33	45	38	32	42	35	30	39	33	29	27
7	59	45	36	30	57	44	35	29	41	33	28	38	31	27	35	30	25	23
8	55	41	32	26	53	40	31	26	37	30	25	35	28	24	32	27	23	20
9	51	37	29	23	49	36	28	23	34	27	22	32	26	21	30	24	20	18
10	48	34	26	21	46	33	26	21	31	24	20	29	23	19	28	22	18	16

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 29-4-L54-835-AF-CT-DIM-UNV_.IES

UGR TABLE - CORRECTED

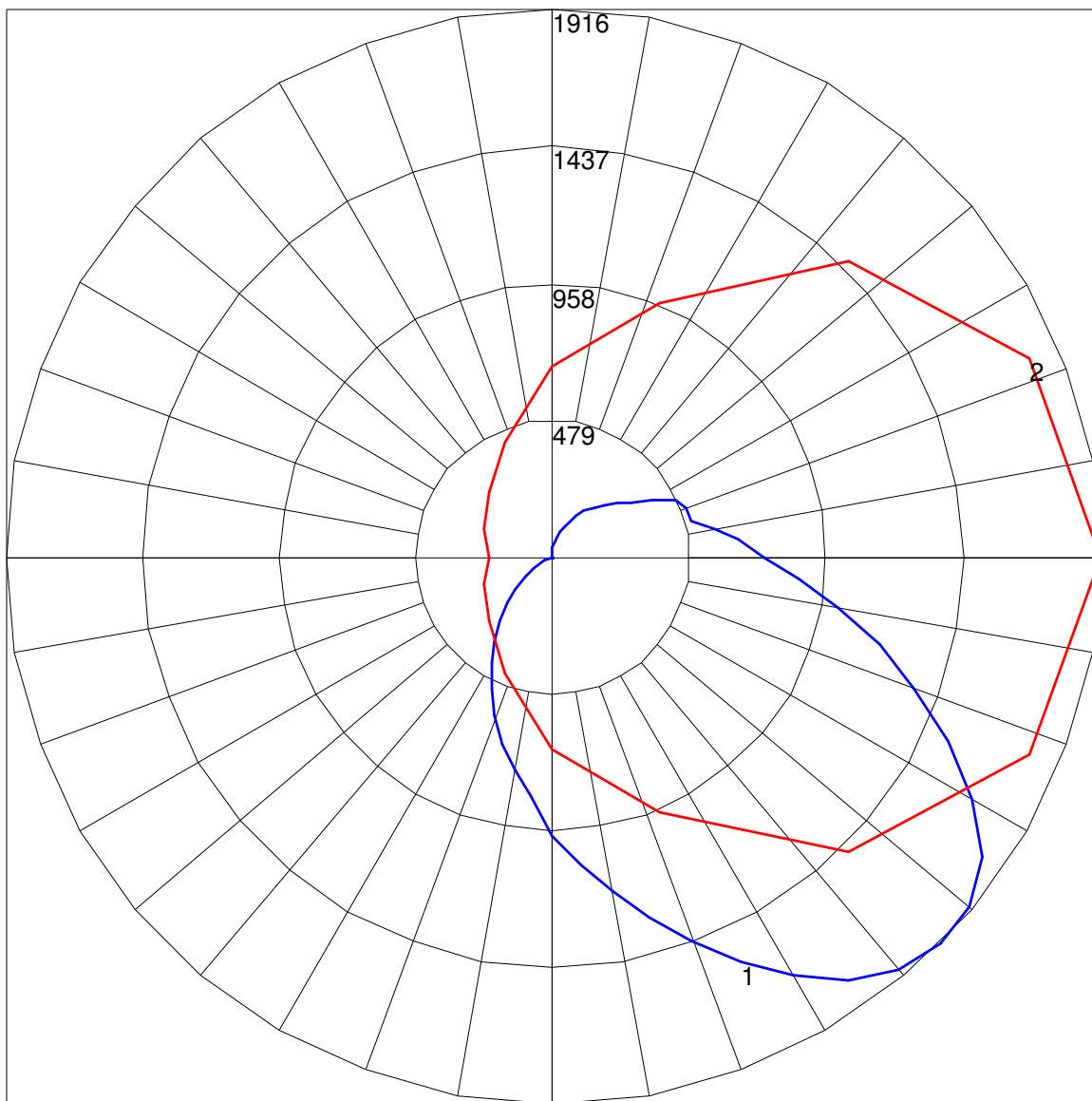
Reflectances

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	25.9	27.4	26.5	28.0	28.6	17.1	18.5	17.7	19.1	19.8
	3H	28.5	29.8	29.1	30.4	31.1	18.4	19.7	19.0	20.3	21.0
	4H	29.7	30.9	30.3	31.5	32.2	18.8	20.1	19.4	20.7	21.4
	6H	30.9	32.0	31.5	32.7	33.4	19.1	20.2	19.7	20.9	21.6
	8H	31.5	32.6	32.1	33.2	34.0	19.2	20.3	19.8	20.9	21.6
	12H	32.1	33.1	32.7	33.8	34.5	19.2	20.2	19.8	20.9	21.6
4H	2H	26.2	27.4	26.8	28.0	28.7	19.1	20.3	19.7	20.9	21.7
	3H	29.0	30.0	29.6	30.7	31.4	20.5	21.6	21.1	22.2	23.0
	4H	30.4	31.3	31.0	32.0	32.7	21.0	22.0	21.6	22.6	23.4
	6H	31.7	32.6	32.4	33.3	34.1	21.3	22.1	21.9	22.8	23.6
	8H	32.5	33.3	33.1	33.9	34.7	21.4	22.2	22.0	22.9	23.6
	12H	33.2	33.9	33.9	34.6	35.4	21.4	22.2	22.1	22.9	23.6
8H	4H	30.5	31.3	31.1	31.9	32.7	22.3	23.1	23.0	23.8	24.6
	6H	32.0	32.7	32.7	33.4	34.2	22.8	23.5	23.5	24.2	25.0
	8H	32.9	33.5	33.6	34.2	35.0	23.0	23.6	23.7	24.3	25.1
	12H	33.8	34.3	34.5	35.0	35.9	23.0	23.6	23.7	24.3	25.2
12H	4H	30.4	31.2	31.1	31.9	32.7	22.7	23.4	23.4	24.1	24.9
	6H	32.0	32.7	32.8	33.4	34.2	23.3	24.0	24.1	24.6	25.5
	8H	32.9	33.5	33.6	34.2	35.0	23.6	24.1	24.3	24.8	25.7

Maximum UGR = 35.9

POLAR GRAPH



Maximum Candela = 1915.708 Located At Horizontal Angle = 0, Vertical Angle = 45
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (45) (Through Max. Cd.)