



IES INDOOR REPORT

PHOTOMETRIC FILENAME : PTDC-24-L90-950-RA-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] GEN FROM BALLABS TEST NO. 19235.0
[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC
[ISSUEDATE] 2022-05-06
[MANUFAC] WILLIAMS INDOOR
[OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO
[LUMINAIRE] 2x4' RECESSED LED LUMINAIRE
[MORE] w/RIBBED FROSTED ACRYLIC CENTER DIFFUSER
[LUMCAT] PTDC-24-L90-950-RA-DIM-UNV
[LAMPCAT] HLM 90 CRI 5000K CCT
[_SEARCH_SOURCETYPE] LED
[_SEARCH_APPLICATION] Indoor, Architectural, Office, Direct
[_SEARCH_MOUNTING] Recessed

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	8116
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	114
Total Luminaire Watts	71.4
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.14
Spacing Criterion (90-270)	1.18
Spacing Criterion (Diagonal)	1.28
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	3.92 ft
Luminous Width (90-270)	1.92 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	3481	3673	3860
55	3120	3415	3688
65	2742	3249	3692
75	2122	3259	4035
85	1281	4276	4900

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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	3105.080	3105.080	3105.080	3105.080	3105.080
5	3057.666	3053.452	3053.452	3042.915	3037.647
10	3048.183	3048.183	3053.452	3057.666	3057.666
15	2968.107	2972.321	2977.589	2984.965	2990.233
20	2772.129	2782.666	2795.309	2812.168	2817.436
25	2615.137	2624.620	2649.907	2672.033	2682.570
30	2291.669	2221.075	2509.773	2426.535	2413.891
35	2113.604	2133.623	2181.037	2221.075	2236.880
40	1880.749	1906.036	1958.719	2011.401	2031.420
45	1718.488	1740.615	1813.316	1880.749	1906.036
50	1493.009	1527.779	1607.856	1678.450	1702.684
55	1249.618	1287.549	1367.626	1447.703	1477.205
60	1018.871	1058.909	1149.522	1231.706	1262.262
65	809.196	861.878	958.813	1054.695	1089.465
70	596.361	658.526	773.372	874.522	909.292
75	383.525	460.441	588.985	691.188	729.120
80	210.728	310.824	458.334	558.430	588.985
85	77.969	178.065	260.249	292.912	298.180
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	1125.59	N.A.	13.90
0-30	2332.77	N.A.	28.70
0-40	3693.59	N.A.	45.50
0-60	6307.86	N.A.	77.70
0-80	7873.68	N.A.	97.00
0-90	8116.4	N.A.	100.00
10-90	7824.52	N.A.	96.40
20-40	2568.01	N.A.	31.60
20-50	3956.01	N.A.	48.70
40-70	3560.88	N.A.	43.90
60-80	1565.82	N.A.	19.30
70-80	619.21	N.A.	7.60
80-90	242.72	N.A.	3.00
90-110	0.00	N.A.	0.00
90-120	0.00	N.A.	0.00
90-130	0.00	N.A.	0.00
90-150	0.00	N.A.	0.00
90-180	0.00	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	8116.4	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	291.88
10-20	833.71
20-30	1207.18
30-40	1360.83
40-50	1388.00
50-60	1226.26
60-70	946.61
70-80	619.21
80-90	242.72
90-100	0.00
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	108	103	99	95	106	101	97	93	97	93	90	93	90	88	89	87	85	83
2	98	90	83	77	96	88	82	76	85	79	74	81	77	73	78	74	71	69
3	90	79	71	64	87	78	70	64	75	68	63	72	66	61	69	64	60	58
4	82	70	61	55	80	69	61	54	66	59	53	64	58	53	62	56	52	50
5	76	63	54	47	74	62	53	47	60	52	46	58	51	46	56	50	45	43
6	70	57	48	41	68	56	47	41	54	46	41	52	46	40	51	45	40	38
7	65	52	43	37	63	51	42	37	49	42	36	48	41	36	46	40	36	34
8	61	47	39	33	59	46	38	33	45	38	32	44	37	32	43	37	32	30
9	57	43	35	30	55	43	35	30	42	34	29	41	34	29	40	33	29	27
10	53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	27	25

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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

X=2H	Y=2H	15.7	17.3	16.0	17.6	17.9	16.7	18.3	17.0	18.6	18.9
	3H	17.3	18.8	17.7	19.1	19.5	18.8	20.3	19.2	20.7	21.0
	4H	17.9	19.3	18.3	19.6	20.0	19.8	21.2	20.2	21.6	22.0
	6H	18.2	19.6	18.7	19.9	20.3	20.9	22.2	21.3	22.5	22.9
	8H	18.4	19.6	18.8	20.0	20.4	21.3	22.5	21.7	22.9	23.3
	12H	18.4	19.6	18.9	20.0	20.4	21.6	22.8	22.1	23.2	23.6

UGR Viewed Endwise

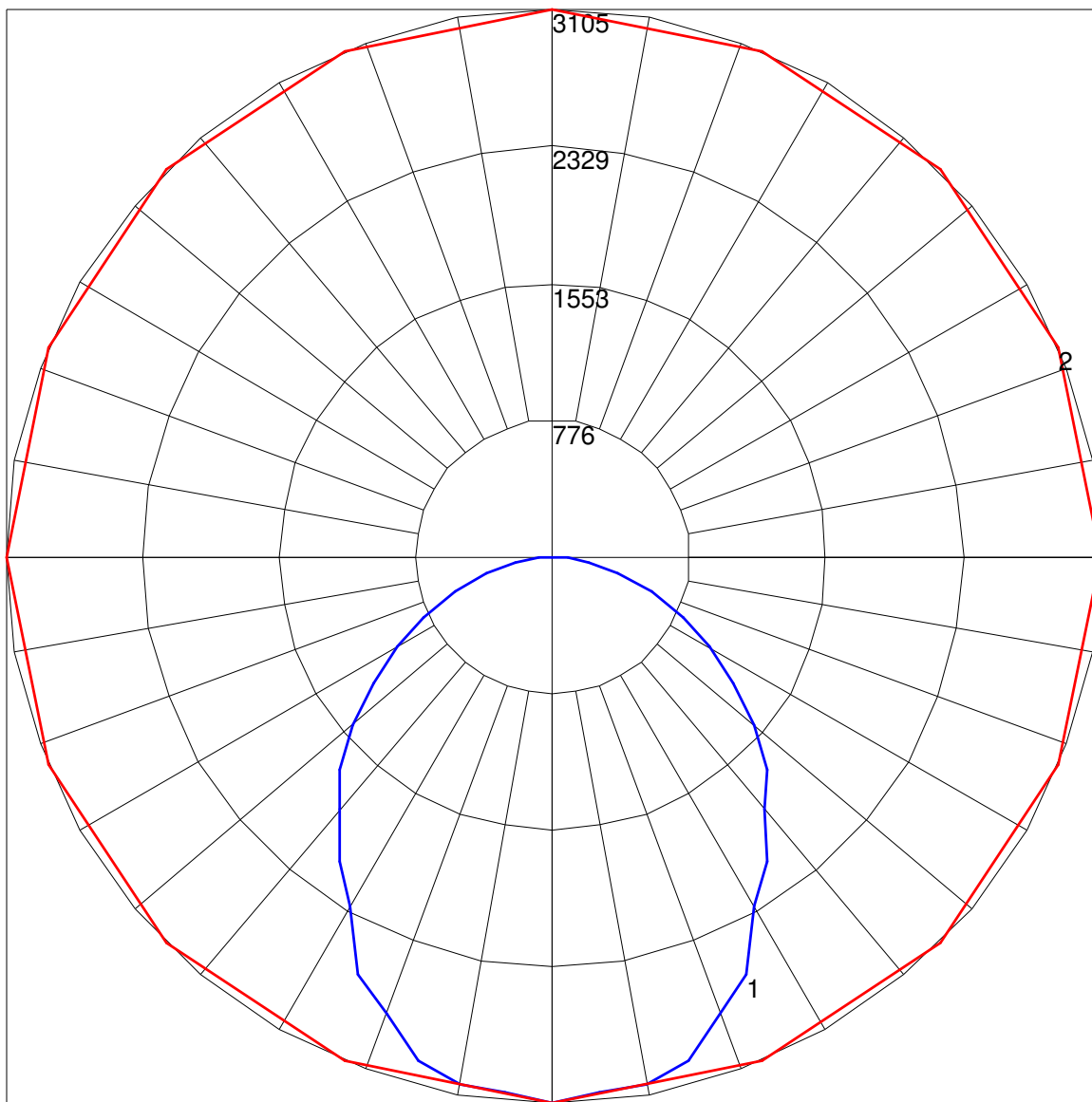
4H	2H	16.4	17.8	16.8	18.2	18.6	17.2	18.6	17.6	19.0	19.3
	3H	18.3	19.5	18.8	19.9	20.3	19.7	20.9	20.1	21.3	21.7
	4H	19.0	20.1	19.5	20.5	21.0	20.8	21.9	21.3	22.3	22.8
	6H	19.6	20.5	20.0	21.0	21.4	22.1	23.0	22.5	23.5	23.9
	8H	19.7	20.6	20.2	21.1	21.5	22.6	23.5	23.1	23.9	24.4
	12H	19.9	20.7	20.4	21.1	21.6	23.0	23.8	23.5	24.3	24.8

8H	4H	19.6	20.5	20.1	21.0	21.4	21.2	22.1	21.6	22.5	23.0
	6H	20.4	21.1	20.9	21.6	22.1	22.6	23.4	23.1	23.9	24.3
	8H	20.7	21.3	21.2	21.8	22.3	23.3	24.0	23.8	24.5	24.9
	12H	20.9	21.5	21.4	22.0	22.5	23.9	24.4	24.4	24.9	25.5

12H	4H	19.8	20.6	20.3	21.1	21.5	21.2	22.0	21.7	22.5	23.0
	6H	20.6	21.3	21.2	21.8	22.3	22.7	23.4	23.3	23.9	24.4
	8H	21.0	21.6	21.5	22.1	22.7	23.5	24.0	24.0	24.5	25.1

Maximum UGR = 25.5

POLAR GRAPH



Maximum Candela = 3105.08 Located At Horizontal Angle = 0, Vertical Angle = 0
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (0) (Through Max. Cd.)