



IES INDOOR REPORT

PHOTOMETRIC FILENAME : PTDC-24-L61-840-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-L61-840-RA-DIM-UNV
 [LAMPCAT] HLM 80 CRI 4000K 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	6241
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	129
Total Luminaire Watts	48.5
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	2676	2824	2968
55	2399	2626	2836
65	2109	2498	2839
75	1632	2506	3102
85	985	3288	3768

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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	2387.583	2387.583	2387.583	2387.583	2387.583
5	2351.125	2347.884	2347.884	2339.782	2335.731
10	2343.833	2343.833	2347.884	2351.125	2351.125
15	2282.260	2285.501	2289.552	2295.223	2299.274
20	2131.568	2139.669	2149.391	2162.354	2166.405
25	2010.852	2018.143	2037.587	2054.601	2062.703
30	1762.128	1707.847	1929.834	1865.831	1856.108
35	1625.209	1640.602	1677.060	1707.847	1719.999
40	1446.160	1465.605	1506.113	1546.622	1562.015
45	1321.394	1338.407	1394.309	1446.160	1465.605
50	1148.016	1174.752	1236.325	1290.607	1309.241
55	960.866	990.033	1051.606	1113.179	1135.864
60	783.438	814.225	883.900	947.093	970.588
65	622.214	662.722	737.258	810.984	837.720
70	458.558	506.359	594.668	672.444	699.180
75	294.903	354.046	452.887	531.474	560.640
80	162.035	239.001	352.426	429.392	452.887
85	59.953	136.919	200.113	225.228	229.279
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	865.49	N.A.	13.90
0-30	1793.73	N.A.	28.70
0-40	2840.11	N.A.	45.50
0-60	4850.29	N.A.	77.70
0-80	6054.29	N.A.	97.00
0-90	6240.93	N.A.	100.00
10-90	6016.5	N.A.	96.40
20-40	1974.61	N.A.	31.60
20-50	3041.89	N.A.	48.70
40-70	2738.06	N.A.	43.90
60-80	1204.00	N.A.	19.30
70-80	476.13	N.A.	7.60
80-90	186.64	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	6240.93	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	224.43
10-20	641.06
20-30	928.24
30-40	1046.38
40-50	1067.27
50-60	942.91
60-70	727.87
70-80	476.13
80-90	186.64
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

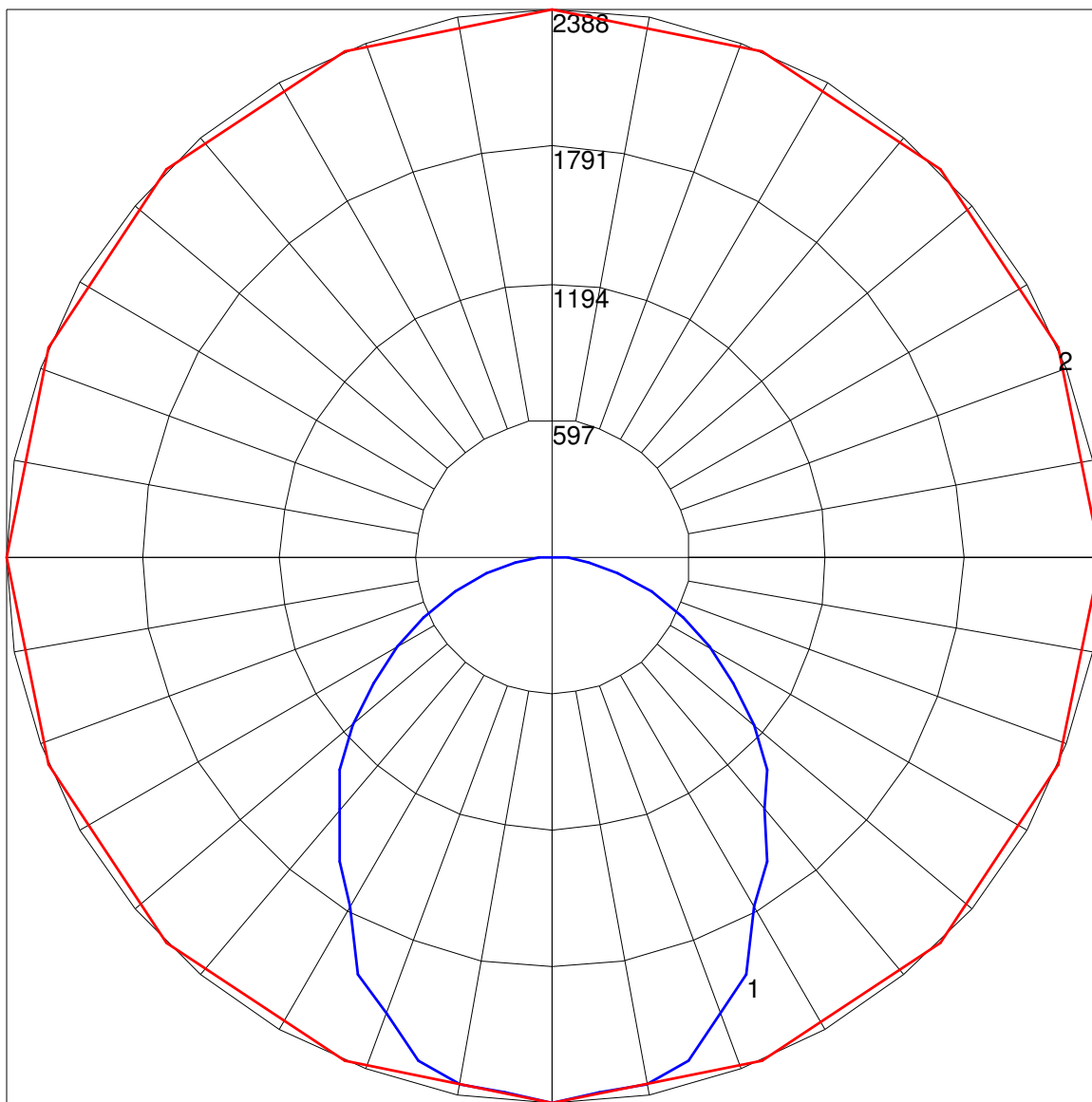
Reflectances

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					UGR Viewed Endwise				
X=2H	Y=2H	14.7	16.4	15.1	16.7	17.0	15.8	17.4	16.1	17.7	18.0
	3H	16.4	17.9	16.8	18.2	18.6	17.9	19.4	18.3	19.8	20.1
	4H	17.0	18.4	17.4	18.7	19.1	18.9	20.3	19.3	20.7	21.1
	6H	17.3	18.7	17.8	19.0	19.4	20.0	21.3	20.4	21.6	22.0
	8H	17.5	18.7	17.9	19.1	19.5	20.4	21.6	20.8	22.0	22.4
	12H	17.5	18.7	18.0	19.1	19.5	20.7	21.9	21.2	22.3	22.7
4H	2H	15.5	16.9	15.9	17.3	17.7	16.3	17.7	16.7	18.1	18.4
	3H	17.4	18.6	17.9	19.0	19.4	18.8	20.0	19.2	20.4	20.7
	4H	18.1	19.2	18.6	19.6	20.1	19.9	21.0	20.4	21.4	21.9
	6H	18.7	19.6	19.1	20.1	20.5	21.2	22.1	21.6	22.6	23.0
	8H	18.8	19.7	19.3	20.2	20.6	21.7	22.6	22.2	23.0	23.5
	12H	19.0	19.8	19.5	20.2	20.7	22.1	22.9	22.6	23.4	23.9
8H	4H	18.7	19.6	19.2	20.1	20.5	20.3	21.2	20.7	21.6	22.1
	6H	19.5	20.2	20.0	20.7	21.2	21.7	22.5	22.2	23.0	23.4
	8H	19.8	20.4	20.3	20.9	21.4	22.4	23.1	22.9	23.6	24.0
	12H	20.0	20.6	20.5	21.1	21.6	23.0	23.5	23.5	24.0	24.6
12H	4H	18.9	19.7	19.4	20.2	20.6	20.3	21.1	20.8	21.6	22.1
	6H	19.7	20.4	20.3	20.9	21.4	21.8	22.5	22.4	23.0	23.5
	8H	20.1	20.7	20.6	21.2	21.8	22.6	23.1	23.1	23.6	24.2

Maximum UGR = 24.6

POLAR GRAPH



Maximum Candela = 2387.583 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.)