



IES INDOOR REPORT

PHOTOMETRIC FILENAME : PTDC-24-L38-840-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-L38-840-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	3876
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	123
Total Luminaire Watts	31.4
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	1662	1754	1844
55	1490	1631	1761
65	1310	1552	1763
75	1013	1556	1927
85	612	2042	2340

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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	1482.831	1482.831	1482.831	1482.831	1482.831
5	1460.189	1458.176	1458.176	1453.144	1450.628
10	1455.660	1455.660	1458.176	1460.189	1460.189
15	1417.420	1419.432	1421.948	1425.470	1427.986
20	1323.831	1328.862	1334.900	1342.951	1345.467
25	1248.859	1253.387	1265.463	1276.030	1281.061
30	1094.387	1060.675	1198.542	1158.792	1152.754
35	1009.352	1018.912	1041.554	1060.675	1068.222
40	898.152	910.228	935.386	960.545	970.105
45	820.664	831.231	865.949	898.152	910.228
50	712.987	729.591	767.832	801.544	813.117
55	596.755	614.869	653.110	691.351	705.439
60	486.562	505.682	548.954	588.201	602.793
65	386.432	411.590	457.881	503.669	520.274
70	284.792	314.479	369.324	417.628	434.233
75	183.153	219.884	281.270	330.077	348.191
80	100.633	148.434	218.877	266.678	281.270
85	37.234	85.035	124.282	139.880	142.396
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	537.52	N.A.	13.90
0-30	1114.01	N.A.	28.70
0-40	1763.88	N.A.	45.50
0-60	3012.32	N.A.	77.70
0-80	3760.08	N.A.	97.00
0-90	3875.99	N.A.	100.00
10-90	3736.6	N.A.	96.40
20-40	1226.35	N.A.	31.60
20-50	1889.19	N.A.	48.70
40-70	1700.5	N.A.	43.90
60-80	747.76	N.A.	19.30
70-80	295.70	N.A.	7.60
80-90	115.91	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	3875.99	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	139.39
10-20	398.14
20-30	576.49
30-40	649.86
40-50	662.84
50-60	585.60
60-70	452.05
70-80	295.70
80-90	115.91
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

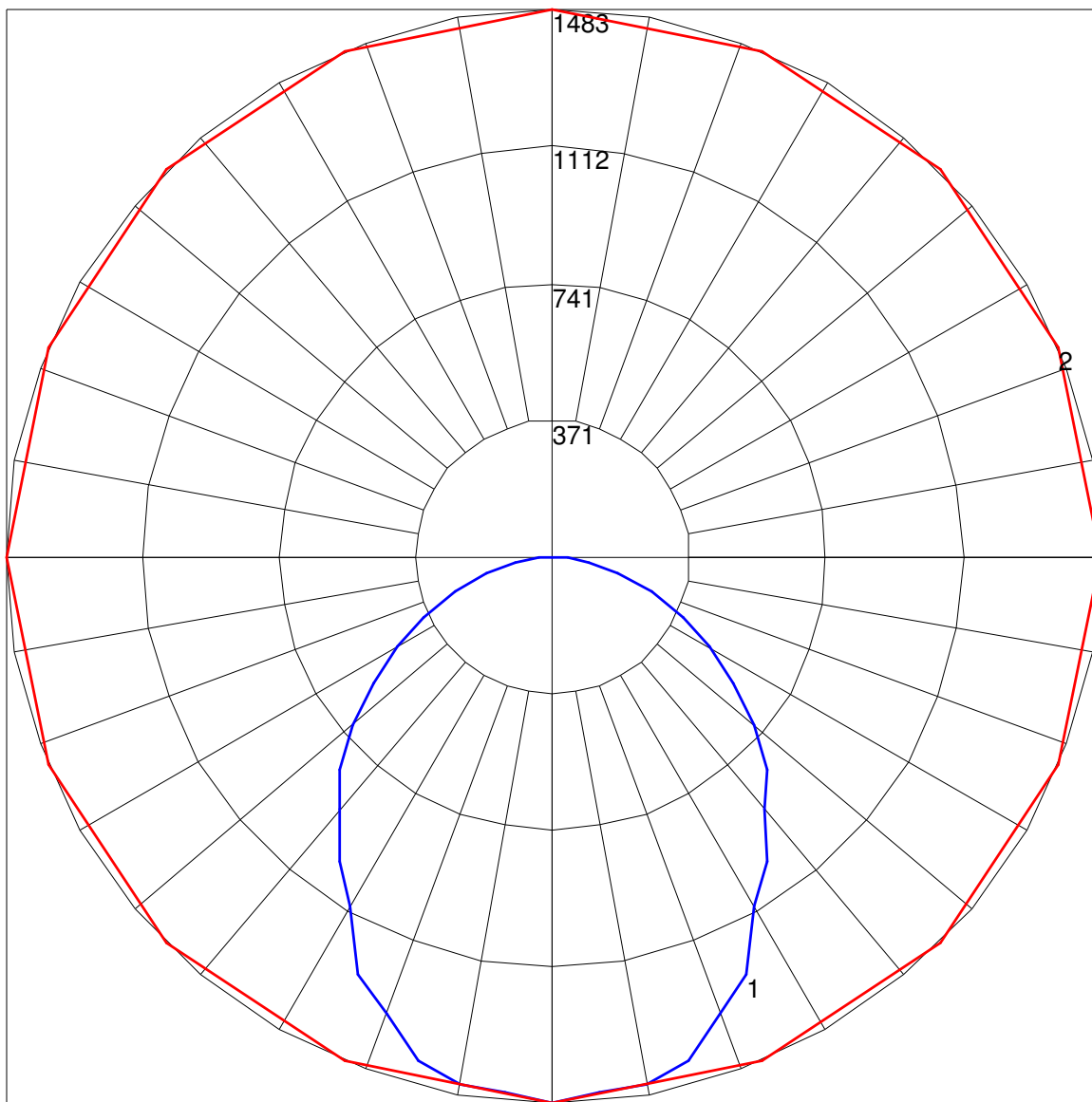
X=2H	Y=2H	13.1	14.7	13.4	15.0	15.3	14.1	15.7	14.4	16.0	16.3
	3H	14.7	16.2	15.1	16.5	16.9	16.2	17.7	16.6	18.1	18.4
	4H	15.3	16.7	15.7	17.0	17.4	17.2	18.6	17.6	19.0	19.4
	6H	15.6	17.0	16.1	17.3	17.7	18.3	19.6	18.7	19.9	20.3
	8H	15.8	17.0	16.2	17.4	17.8	18.7	19.9	19.1	20.3	20.7
	12H	15.8	17.0	16.3	17.4	17.8	19.0	20.2	19.5	20.6	21.0

UGR Viewed Endwise

4H	2H	13.8	15.2	14.2	15.6	16.0	14.6	16.0	15.0	16.4	16.7
	3H	15.7	16.9	16.2	17.3	17.7	17.1	18.3	17.5	18.7	19.1
	4H	16.4	17.5	16.9	17.9	18.4	18.2	19.3	18.7	19.7	20.2
	6H	17.0	17.9	17.4	18.4	18.8	19.5	20.4	19.9	20.9	21.3
	8H	17.1	18.0	17.6	18.5	18.9	20.0	20.9	20.5	21.3	21.8
	12H	17.3	18.1	17.8	18.5	19.0	20.4	21.2	20.9	21.7	22.2
8H	4H	17.0	17.9	17.5	18.4	18.8	18.6	19.5	19.0	19.9	20.4
	6H	17.8	18.5	18.3	19.0	19.5	20.0	20.8	20.5	21.3	21.7
	8H	18.1	18.7	18.6	19.2	19.7	20.7	21.4	21.2	21.9	22.3
	12H	18.3	18.9	18.8	19.4	19.9	21.3	21.8	21.8	22.3	22.9
12H	4H	17.2	18.0	17.7	18.5	18.9	18.6	19.4	19.1	19.9	20.4
	6H	18.0	18.7	18.6	19.2	19.7	20.1	20.8	20.7	21.3	21.8
	8H	18.4	19.0	18.9	19.5	20.1	20.9	21.4	21.4	21.9	22.5

Maximum UGR = 22.9

POLAR GRAPH



Maximum Candela = 1482.831 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.)