



IES INDOOR REPORT

PHOTOMETRIC FILENAME : PTDC-24-L90-840-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-L90-840-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	9289
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	130
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	3983	4203	4418
55	3571	3908	4221
65	3138	3719	4225
75	2429	3730	4617
85	1466	4894	5607

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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	3553.593	3553.593	3553.593	3553.593	3553.593
5	3499.330	3494.507	3494.507	3482.449	3476.420
10	3488.478	3488.478	3494.507	3499.330	3499.330
15	3396.834	3401.658	3407.687	3416.128	3422.157
20	3172.549	3184.608	3199.078	3218.371	3224.400
25	2992.880	3003.733	3032.673	3057.995	3070.053
30	2622.689	2541.898	2872.297	2777.036	2762.566
35	2418.903	2441.814	2496.076	2541.898	2559.986
40	2152.414	2181.354	2241.645	2301.937	2324.848
45	1966.715	1992.038	2075.240	2152.414	2181.354
50	1708.667	1748.459	1840.103	1920.894	1948.628
55	1430.119	1473.529	1565.173	1656.816	1690.579
60	1166.042	1211.863	1315.565	1409.620	1444.589
65	926.081	986.372	1097.309	1207.040	1246.832
70	682.502	753.646	885.082	1000.842	1040.635
75	438.924	526.949	674.061	791.027	834.437
80	241.167	355.721	524.538	639.092	674.061
85	89.232	203.786	297.841	335.222	341.251
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	1288.17	N.A.	13.90
0-30	2669.73	N.A.	28.70
0-40	4227.12	N.A.	45.50
0-60	7219.00	N.A.	77.70
0-80	9010.99	N.A.	97.00
0-90	9288.78	N.A.	100.00
10-90	8954.74	N.A.	96.40
20-40	2938.94	N.A.	31.60
20-50	4527.44	N.A.	48.70
40-70	4075.23	N.A.	43.90
60-80	1791.99	N.A.	19.30
70-80	708.65	N.A.	7.60
80-90	277.78	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	9288.78	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	334.04
10-20	954.13
20-30	1381.56
30-40	1557.39
40-50	1588.49
50-60	1403.39
60-70	1083.34
70-80	708.65
80-90	277.78
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	16.0	17.7	16.4	18.0	18.3	17.1	18.7	17.4	19.0	19.3
	3H	17.7	19.2	18.1	19.5	19.9	19.2	20.7	19.6	21.1	21.4
	4H	18.3	19.7	18.7	20.0	20.4	20.2	21.6	20.6	22.0	22.4
	6H	18.6	20.0	19.1	20.3	20.7	21.3	22.6	21.7	22.9	23.3
	8H	18.8	20.0	19.2	20.4	20.8	21.7	22.9	22.1	23.3	23.7
	12H	18.8	20.0	19.3	20.4	20.8	22.0	23.2	22.5	23.6	24.0

UGR Viewed Endwise

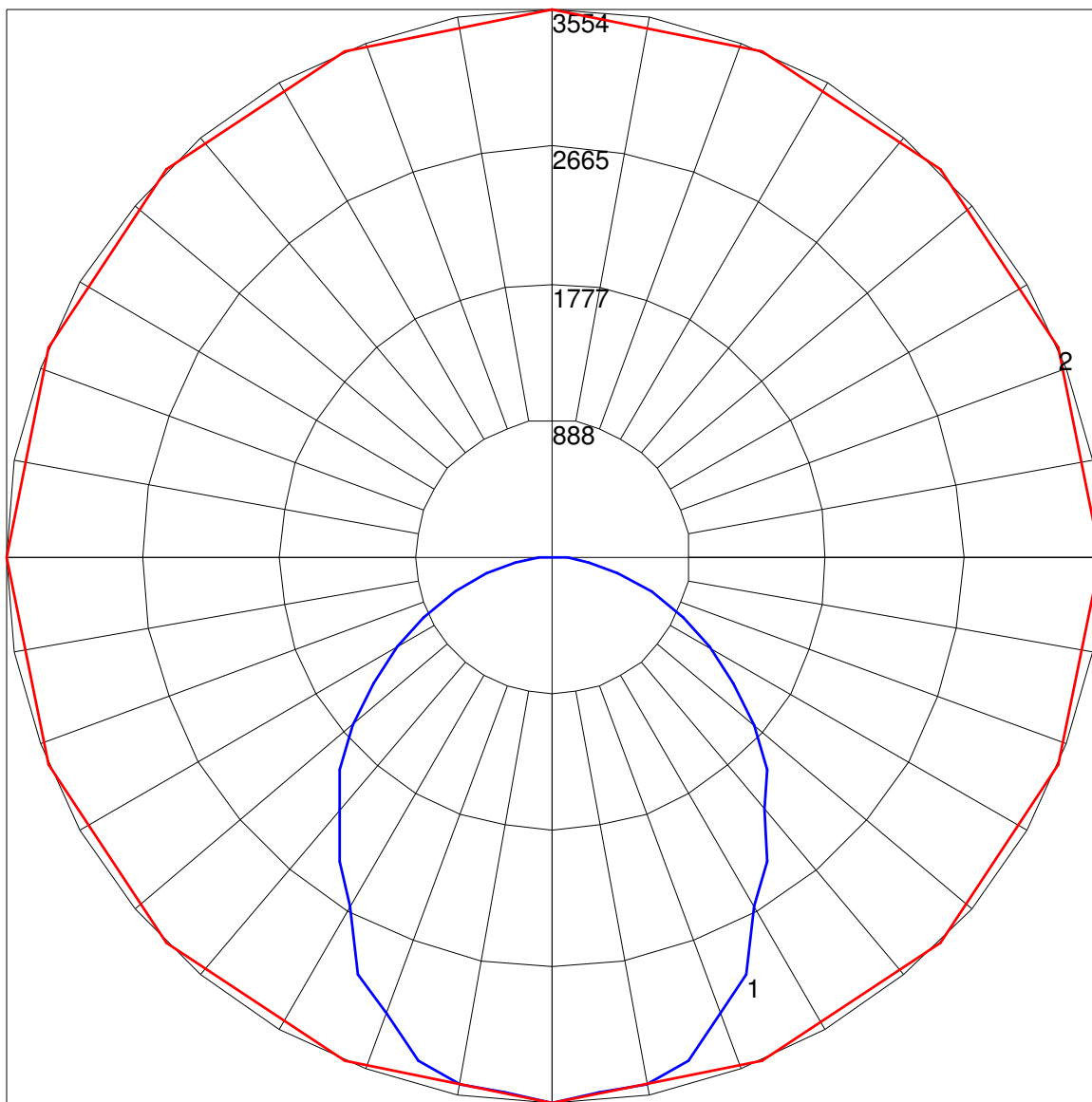
4H	2H	16.8	18.2	17.2	18.6	19.0	17.6	19.0	18.0	19.4	19.7
	3H	18.7	19.9	19.2	20.3	20.7	20.1	21.3	20.5	21.7	22.0
	4H	19.4	20.5	19.9	20.9	21.4	21.2	22.3	21.7	22.7	23.2
	6H	20.0	20.9	20.4	21.4	21.8	22.5	23.4	22.9	23.9	24.3
	8H	20.1	21.0	20.6	21.5	21.9	23.0	23.9	23.5	24.3	24.8
	12H	20.3	21.1	20.8	21.5	22.0	23.4	24.2	23.9	24.7	25.2

8H	4H	20.0	20.9	20.5	21.4	21.8	21.6	22.5	22.0	22.9	23.4
	6H	20.8	21.5	21.3	22.0	22.5	23.0	23.8	23.5	24.3	24.7
	8H	21.1	21.7	21.6	22.2	22.7	23.7	24.4	24.2	24.9	25.3
	12H	21.3	21.9	21.8	22.4	22.9	24.3	24.8	24.8	25.3	25.9

12H	4H	20.2	21.0	20.7	21.5	21.9	21.6	22.4	22.1	22.9	23.4
	6H	21.0	21.7	21.6	22.2	22.7	23.1	23.8	23.7	24.3	24.8
	8H	21.4	22.0	21.9	22.5	23.1	23.9	24.4	24.4	24.9	25.5

Maximum UGR = 25.9

POLAR GRAPH



Maximum Candela = 3553.593 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.)