



IES INDOOR REPORT

PHOTOMETRIC FILENAME : PTDC-24-L90-827-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-L90-827-RA-DIM-UNV
 [LAMPCAT] HLM 80 CRI 2700K 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	8748
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	123
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	3751	3958	4161
55	3363	3680	3975
65	2955	3502	3979
75	2287	3513	4348
85	1381	4609	5281

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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	3346.587	3346.587	3346.587	3346.587	3346.587
5	3295.485	3290.943	3290.943	3279.587	3273.909
10	3285.265	3285.265	3290.943	3295.485	3295.485
15	3198.960	3203.502	3209.180	3217.129	3222.807
20	2987.740	2999.096	3012.723	3030.892	3036.570
25	2818.537	2828.757	2856.011	2879.859	2891.215
30	2469.910	2393.826	2704.978	2615.266	2601.639
35	2277.996	2299.572	2350.673	2393.826	2410.860
40	2027.030	2054.284	2111.064	2167.843	2189.420
45	1852.149	1875.996	1954.352	2027.030	2054.284
50	1609.132	1646.607	1732.912	1808.997	1835.115
55	1346.811	1387.692	1473.997	1560.302	1592.099
60	1098.117	1141.269	1238.930	1327.506	1360.438
65	872.134	928.913	1033.388	1136.727	1174.201
70	642.745	709.744	833.524	942.541	980.015
75	413.355	496.253	634.795	744.948	785.829
80	227.118	334.999	493.982	601.863	634.795
85	84.034	191.915	280.491	315.694	321.372
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	1213.13	N.A.	13.90
0-30	2514.21	N.A.	28.70
0-40	3980.87	N.A.	45.50
0-60	6798.47	N.A.	77.70
0-80	8486.08	N.A.	97.00
0-90	8747.68	N.A.	100.00
10-90	8433.1	N.A.	96.40
20-40	2767.74	N.A.	31.60
20-50	4263.7	N.A.	48.70
40-70	3837.83	N.A.	43.90
60-80	1687.6	N.A.	19.30
70-80	667.37	N.A.	7.60
80-90	261.60	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	8747.68	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	314.58
10-20	898.55
20-30	1301.08
30-40	1466.67
40-50	1495.96
50-60	1321.64
60-70	1020.23
70-80	667.37
80-90	261.60
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	15.8	17.5	16.2	17.8	18.1	16.9	18.5	17.2	18.8	19.1
	3H	17.5	19.0	17.9	19.3	19.7	19.0	20.5	19.4	20.9	21.2
	4H	18.1	19.5	18.5	19.8	20.2	20.0	21.4	20.4	21.8	22.2
	6H	18.4	19.8	18.9	20.1	20.5	21.1	22.4	21.5	22.7	23.1
	8H	18.6	19.8	19.0	20.2	20.6	21.5	22.7	21.9	23.1	23.5
	12H	18.6	19.8	19.1	20.2	20.6	21.8	23.0	22.3	23.4	23.8

UGR Viewed Endwise

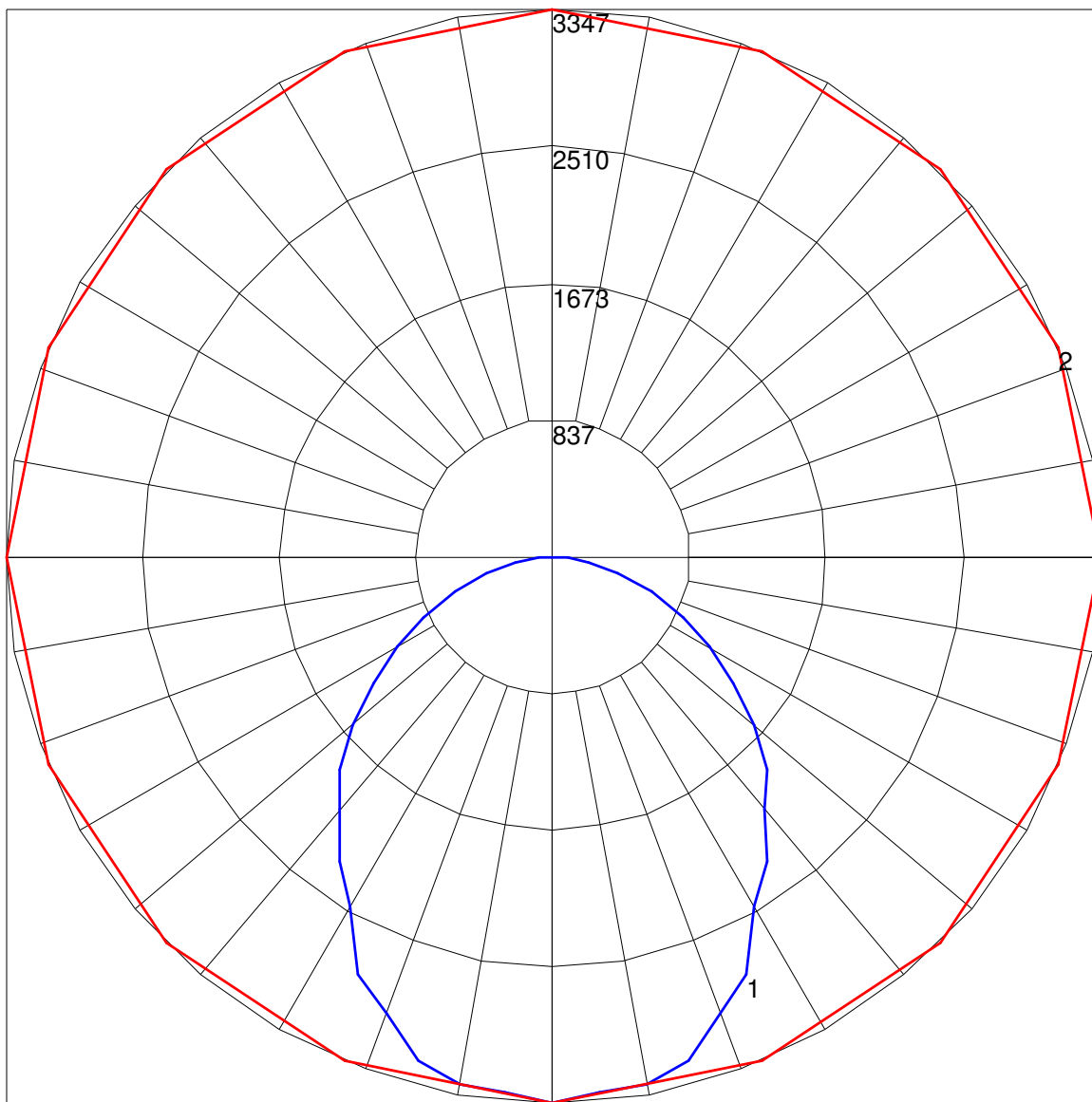
4H	2H	16.6	18.0	17.0	18.4	18.8	17.4	18.8	17.8	19.2	19.5
	3H	18.5	19.7	19.0	20.1	20.5	19.9	21.1	20.3	21.5	21.8
	4H	19.2	20.3	19.7	20.7	21.2	21.0	22.1	21.5	22.5	23.0
	6H	19.8	20.7	20.2	21.2	21.6	22.3	23.2	22.7	23.7	24.1
	8H	19.9	20.8	20.4	21.3	21.7	22.8	23.7	23.3	24.1	24.6
	12H	20.1	20.9	20.6	21.3	21.8	23.2	24.0	23.7	24.5	25.0

8H	4H	19.8	20.7	20.3	21.2	21.6	21.4	22.3	21.8	22.7	23.2
	6H	20.6	21.3	21.1	21.8	22.3	22.8	23.6	23.3	24.1	24.5
	8H	20.9	21.5	21.4	22.0	22.5	23.5	24.2	24.0	24.7	25.1
	12H	21.1	21.7	21.6	22.2	22.7	24.1	24.6	24.6	25.1	25.7

12H	4H	20.0	20.8	20.5	21.3	21.7	21.4	22.2	21.9	22.7	23.2
	6H	20.8	21.5	21.4	22.0	22.5	22.9	23.6	23.5	24.1	24.6
	8H	21.2	21.8	21.7	22.3	22.9	23.7	24.2	24.2	24.7	25.3

Maximum UGR = 25.7

POLAR GRAPH



Maximum Candela = 3346.587 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.)