



IES INDOOR REPORT

PHOTOMETRIC FILENAME : PTDC-24-L61-935-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-L61-935-RA-DIM-UNV
 [LAMPCAT] HLM 90 CRI 3500K 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	5090
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	105
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	2183	2303	2421
55	1957	2141	2313
65	1720	2038	2315
75	1331	2044	2530
85	803	2682	3073

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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	1947.155	1947.155	1947.155	1947.155	1947.155
5	1917.422	1914.779	1914.779	1908.172	1904.868
10	1911.476	1911.476	1914.779	1917.422	1917.422
15	1861.261	1863.904	1867.207	1871.832	1875.136
20	1738.366	1744.973	1752.902	1763.473	1766.777
25	1639.918	1645.864	1661.722	1675.597	1682.204
30	1437.076	1392.807	1573.846	1521.648	1513.720
35	1325.413	1337.967	1367.700	1392.807	1402.718
40	1179.393	1195.250	1228.287	1261.323	1273.877
45	1077.641	1091.517	1137.107	1179.393	1195.250
50	936.246	958.050	1008.265	1052.534	1067.731
55	783.619	807.405	857.620	907.835	926.336
60	638.920	664.028	720.850	772.387	791.548
65	507.436	540.473	601.259	661.385	683.189
70	373.970	412.953	484.972	548.401	570.205
75	240.504	288.737	369.345	433.435	457.221
80	132.145	194.914	287.415	350.184	369.345
85	48.894	111.662	163.199	183.681	186.985
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	705.84	N.A.	13.90
0-30	1462.85	N.A.	28.70
0-40	2316.2	N.A.	45.50
0-60	3955.58	N.A.	77.70
0-80	4937.48	N.A.	97.00
0-90	5089.69	N.A.	100.00
10-90	4906.66	N.A.	96.40
20-40	1610.36	N.A.	31.60
20-50	2480.76	N.A.	48.70
40-70	2232.98	N.A.	43.90
60-80	981.90	N.A.	19.30
70-80	388.30	N.A.	7.60
80-90	152.21	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	5089.69	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	183.03
10-20	522.81
20-30	757.01
30-40	853.36
40-50	870.40
50-60	768.97
60-70	593.61
70-80	388.30
80-90	152.21
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	14.1	15.7	14.4	16.0	16.3	15.1	16.7	15.4	17.0	17.3
	3H	15.7	17.2	16.1	17.5	17.9	17.2	18.7	17.6	19.1	19.4
	4H	16.3	17.7	16.7	18.0	18.4	18.2	19.6	18.6	20.0	20.4
	6H	16.6	18.0	17.1	18.3	18.7	19.3	20.6	19.7	20.9	21.3
	8H	16.8	18.0	17.2	18.4	18.8	19.7	20.9	20.1	21.3	21.7
	12H	16.8	18.0	17.3	18.4	18.8	20.0	21.2	20.5	21.6	22.0

UGR Viewed Endwise

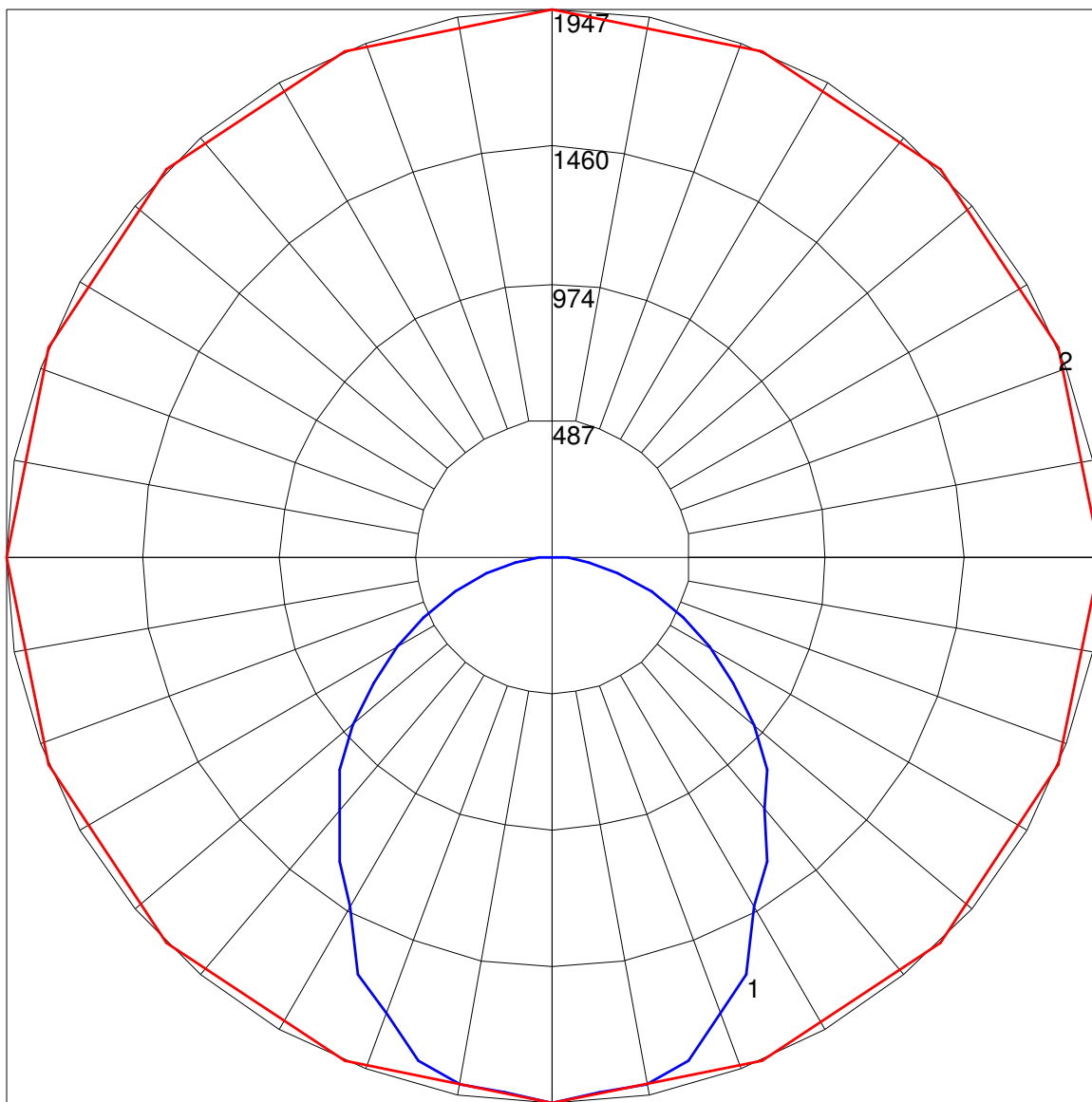
4H	2H	14.8	16.2	15.2	16.6	17.0	15.6	17.0	16.0	17.4	17.7
	3H	16.7	17.9	17.2	18.3	18.7	18.1	19.3	18.5	19.7	20.1
	4H	17.4	18.5	17.9	18.9	19.4	19.2	20.3	19.7	20.7	21.2
	6H	18.0	18.9	18.4	19.4	19.8	20.5	21.4	20.9	21.9	22.3
	8H	18.1	19.0	18.6	19.5	19.9	21.0	21.9	21.5	22.3	22.8
	12H	18.3	19.1	18.8	19.5	20.0	21.4	22.2	21.9	22.7	23.2

8H	4H	18.0	18.9	18.5	19.4	19.8	19.6	20.5	20.0	20.9	21.4
	6H	18.8	19.5	19.3	20.0	20.5	21.0	21.8	21.5	22.3	22.7
	8H	19.1	19.7	19.6	20.2	20.7	21.7	22.4	22.2	22.9	23.3
	12H	19.3	19.9	19.8	20.4	20.9	22.3	22.8	22.8	23.3	23.9

12H	4H	18.2	19.0	18.7	19.5	19.9	19.6	20.4	20.1	20.9	21.4
	6H	19.0	19.7	19.6	20.2	20.7	21.1	21.8	21.7	22.3	22.8
	8H	19.4	20.0	19.9	20.5	21.1	21.9	22.4	22.4	22.9	23.5

Maximum UGR = 23.9

POLAR GRAPH



Maximum Candela = 1947.155 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.)