



IES INDOOR REPORT

PHOTOMETRIC FILENAME : PTDC-24-L49-840-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-L49-840-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	5076
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	136
Total Luminaire Watts	37.2
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	2177	2297	2414
55	1951	2136	2307
65	1715	2032	2309
75	1327	2038	2523
85	801	2674	3064

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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	1941.906	1941.906	1941.906	1941.906	1941.906
5	1912.253	1909.618	1909.618	1903.028	1899.734
10	1906.323	1906.323	1909.618	1912.253	1912.253
15	1856.243	1858.879	1862.174	1866.786	1870.081
20	1733.680	1740.269	1748.177	1758.720	1762.014
25	1635.497	1641.428	1657.242	1671.080	1677.670
30	1433.202	1389.052	1569.603	1517.546	1509.639
35	1321.840	1334.360	1364.013	1389.052	1398.937
40	1176.214	1192.028	1224.976	1257.923	1270.443
45	1074.737	1088.574	1134.041	1176.214	1192.028
50	933.723	955.468	1005.547	1049.697	1064.852
55	781.507	805.229	855.308	905.388	923.839
60	637.198	662.238	718.907	770.305	789.414
65	506.068	539.016	599.638	659.602	681.347
70	372.962	411.840	483.664	546.923	568.668
75	239.855	287.958	368.349	432.267	455.989
80	131.789	194.388	286.640	349.240	368.349
85	48.762	111.361	162.759	183.186	186.481
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	703.94	N.A.	13.90
0-30	1458.91	N.A.	28.70
0-40	2309.96	N.A.	45.50
0-60	3944.91	N.A.	77.70
0-80	4924.17	N.A.	97.00
0-90	5075.97	N.A.	100.00
10-90	4893.43	N.A.	96.40
20-40	1606.02	N.A.	31.60
20-50	2474.07	N.A.	48.70
40-70	2226.96	N.A.	43.90
60-80	979.26	N.A.	19.30
70-80	387.25	N.A.	7.60
80-90	151.80	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	5075.97	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	182.54
10-20	521.40
20-30	754.97
30-40	851.06
40-50	868.05
50-60	766.90
60-70	592.01
70-80	387.25
80-90	151.80
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

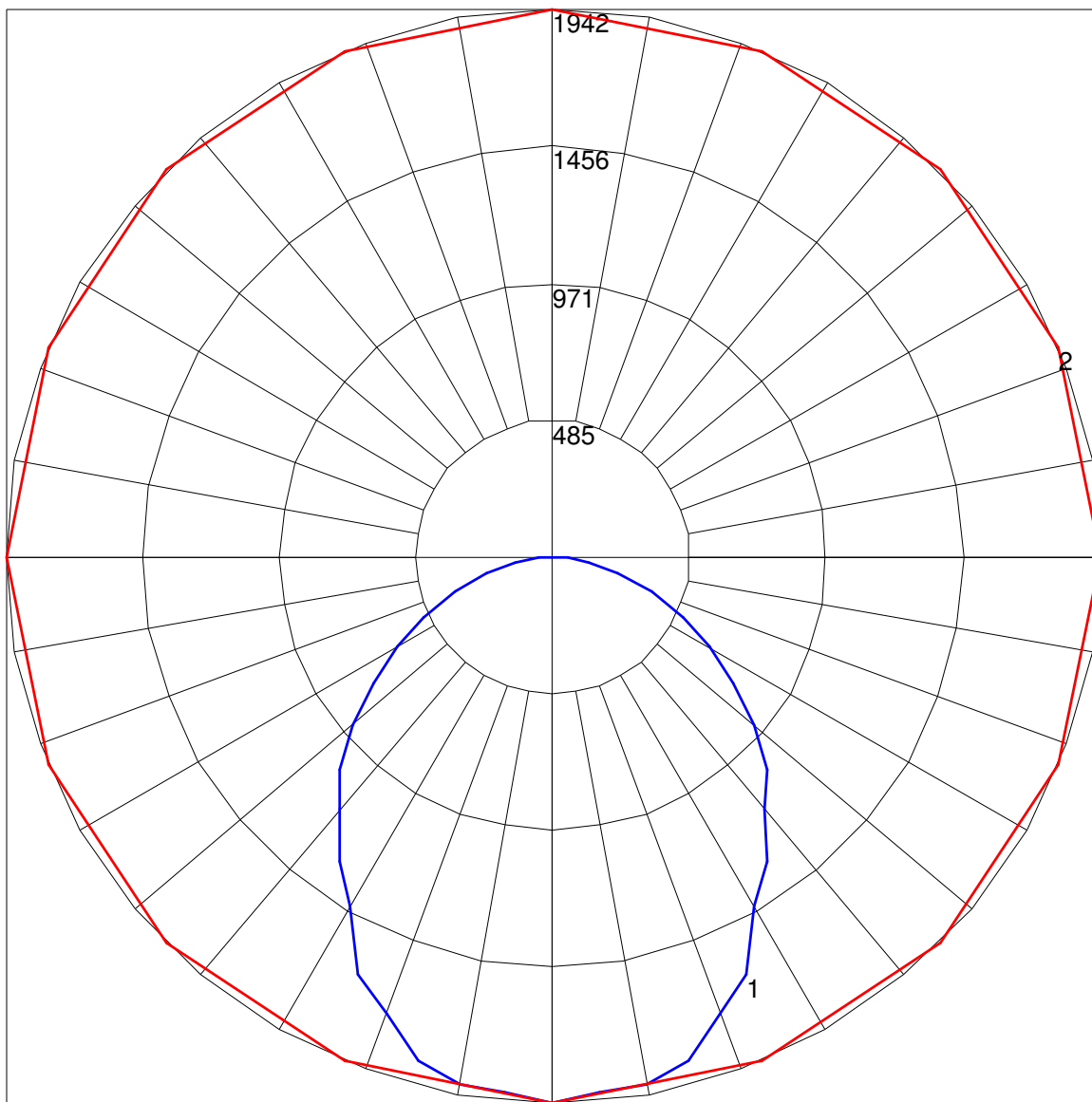
Reflectances

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	14.0	15.6	14.3	15.9	16.2	15.0	16.6	15.3	16.9	17.2
	3H	15.6	17.1	16.0	17.4	17.8	17.1	18.6	17.5	19.0	19.3
	4H	16.2	17.6	16.6	17.9	18.3	18.1	19.5	18.5	19.9	20.3
	6H	16.5	17.9	17.0	18.2	18.6	19.2	20.5	19.6	20.8	21.2
	8H	16.7	17.9	17.1	18.3	18.7	19.6	20.8	20.0	21.2	21.6
	12H	16.7	17.9	17.2	18.3	18.7	19.9	21.1	20.4	21.5	21.9
4H	2H	14.7	16.1	15.1	16.5	16.9	15.5	16.9	15.9	17.3	17.6
	3H	16.6	17.8	17.1	18.2	18.6	18.0	19.2	18.4	19.6	20.0
	4H	17.3	18.4	17.8	18.8	19.3	19.1	20.2	19.6	20.6	21.1
	6H	17.9	18.8	18.3	19.3	19.7	20.4	21.3	20.8	21.8	22.2
	8H	18.0	18.9	18.5	19.4	19.8	20.9	21.8	21.4	22.2	22.7
	12H	18.2	19.0	18.7	19.4	19.9	21.3	22.1	21.8	22.6	23.1
8H	4H	17.9	18.8	18.4	19.3	19.7	19.5	20.4	19.9	20.8	21.3
	6H	18.7	19.4	19.2	19.9	20.4	20.9	21.7	21.4	22.2	22.6
	8H	19.0	19.6	19.5	20.1	20.6	21.6	22.3	22.1	22.8	23.2
	12H	19.2	19.8	19.7	20.3	20.8	22.2	22.7	22.7	23.2	23.8
12H	4H	18.1	18.9	18.6	19.4	19.8	19.5	20.3	20.0	20.8	21.3
	6H	18.9	19.6	19.5	20.1	20.6	21.0	21.7	21.6	22.2	22.7
	8H	19.3	19.9	19.8	20.4	21.0	21.8	22.3	22.3	22.8	23.4

Maximum UGR = 23.8

POLAR GRAPH



Maximum Candela = 1941.906 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.)