



IES INDOOR REPORT

PHOTOMETRIC FILENAME : PTDC-24-L90-940-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-L90-940-RA-DIM-UNV
 [LAMPCAT] HLM 90 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	7756
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	109
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	3326	3509	3689
55	2981	3263	3524
65	2620	3105	3528
75	2028	3114	3855
85	1224	4086	4682

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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	2967.078	2967.078	2967.078	2967.078	2967.078
5	2921.771	2917.744	2917.744	2907.676	2902.642
10	2912.710	2912.710	2917.744	2921.771	2921.771
15	2836.192	2840.220	2845.254	2852.301	2857.335
20	2648.925	2658.993	2671.075	2687.184	2692.218
25	2498.910	2507.971	2532.135	2553.278	2563.346
30	2189.818	2122.362	2398.229	2318.690	2306.609
35	2019.667	2038.796	2084.103	2122.362	2137.464
40	1797.161	1821.325	1871.665	1922.006	1941.136
45	1642.112	1663.255	1732.725	1797.161	1821.325
50	1426.654	1459.879	1536.397	1603.853	1627.010
55	1194.080	1230.326	1306.843	1383.361	1411.552
60	973.588	1011.847	1098.433	1176.964	1206.162
65	773.232	823.573	916.200	1007.820	1041.045
70	569.856	629.258	739.001	835.655	868.880
75	366.480	439.977	562.808	660.469	696.715
80	201.363	297.010	437.964	533.611	562.808
85	74.504	170.151	248.683	279.894	284.928
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	1075.56	N.A.	13.90
0-30	2229.09	N.A.	28.70
0-40	3529.44	N.A.	45.50
0-60	6027.51	N.A.	77.70
0-80	7523.74	N.A.	97.00
0-90	7755.68	N.A.	100.00
10-90	7476.77	N.A.	96.40
20-40	2453.88	N.A.	31.60
20-50	3780.19	N.A.	48.70
40-70	3402.62	N.A.	43.90
60-80	1496.23	N.A.	19.30
70-80	591.69	N.A.	7.60
80-90	231.94	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	7755.68	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	278.91
10-20	796.66
20-30	1153.53
30-40	1300.34
40-50	1326.31
50-60	1171.76
60-70	904.54
70-80	591.69
80-90	231.94
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

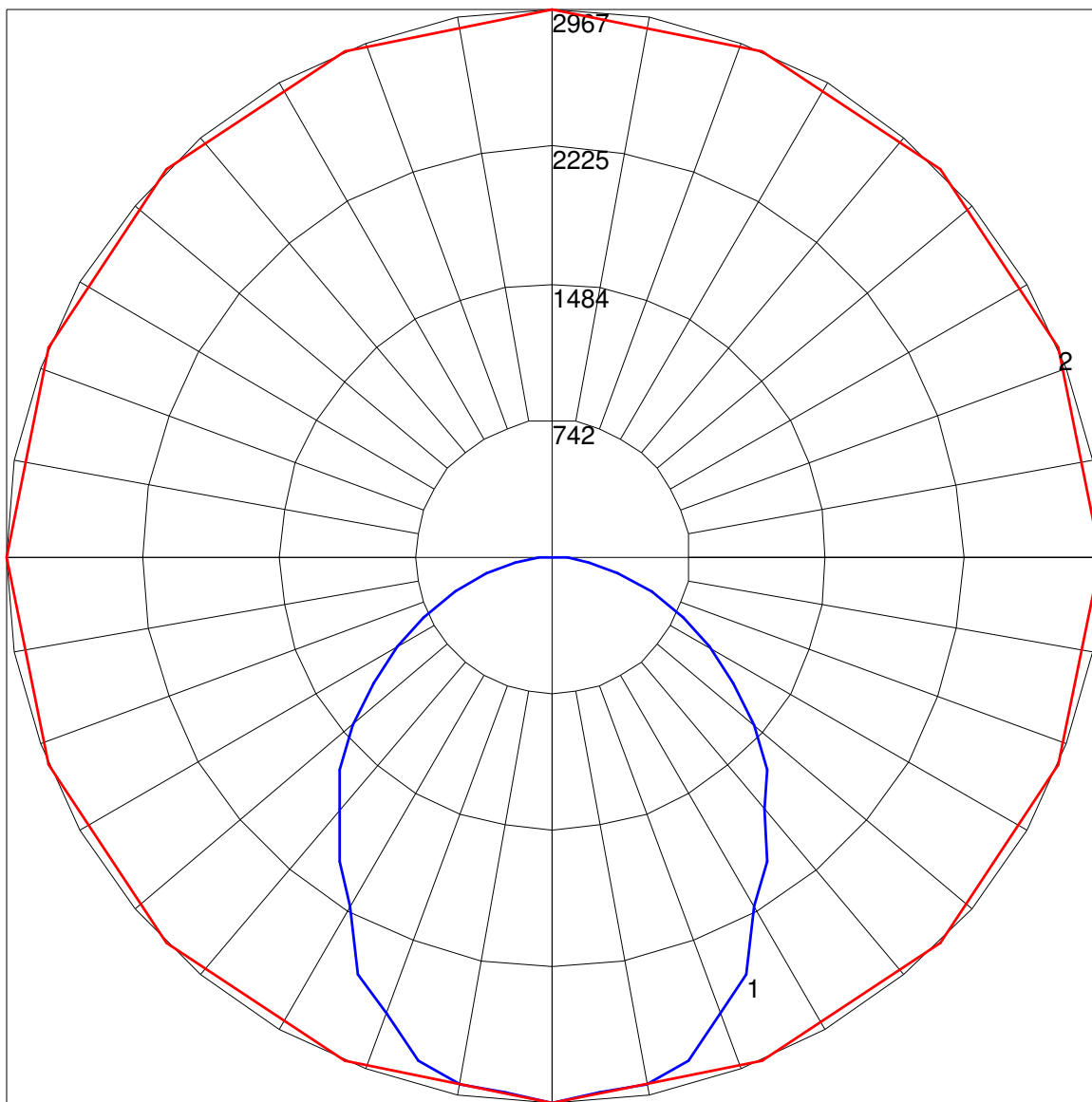
Reflectances

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	15.5	17.1	15.8	17.4	17.7	16.5	18.1	16.8	18.4	18.7
	3H	17.1	18.6	17.5	18.9	19.3	18.6	20.1	19.0	20.5	20.8
	4H	17.7	19.1	18.1	19.4	19.8	19.6	21.0	20.0	21.4	21.8
	6H	18.0	19.4	18.5	19.7	20.1	20.7	22.0	21.1	22.3	22.7
	8H	18.2	19.4	18.6	19.8	20.2	21.1	22.3	21.5	22.7	23.1
	12H	18.2	19.4	18.7	19.8	20.2	21.4	22.6	21.9	23.0	23.4
4H	2H	16.2	17.6	16.6	18.0	18.4	17.0	18.4	17.4	18.8	19.1
	3H	18.1	19.3	18.6	19.7	20.1	19.5	20.7	19.9	21.1	21.5
	4H	18.8	19.9	19.3	20.3	20.8	20.6	21.7	21.1	22.1	22.6
	6H	19.4	20.3	19.8	20.8	21.2	21.9	22.8	22.3	23.3	23.7
	8H	19.5	20.4	20.0	20.9	21.3	22.4	23.3	22.9	23.7	24.2
	12H	19.7	20.5	20.2	20.9	21.4	22.8	23.6	23.3	24.1	24.6
8H	4H	19.4	20.3	19.9	20.8	21.2	21.0	21.9	21.4	22.3	22.8
	6H	20.2	20.9	20.7	21.4	21.9	22.4	23.2	22.9	23.7	24.1
	8H	20.5	21.1	21.0	21.6	22.1	23.1	23.8	23.6	24.3	24.7
	12H	20.7	21.3	21.2	21.8	22.3	23.7	24.2	24.2	24.7	25.3
12H	4H	19.6	20.4	20.1	20.9	21.3	21.0	21.8	21.5	22.3	22.8
	6H	20.4	21.1	21.0	21.6	22.1	22.5	23.2	23.1	23.7	24.2
	8H	20.8	21.4	21.3	21.9	22.5	23.3	23.8	23.8	24.3	24.9

Maximum UGR = 25.3

POLAR GRAPH



Maximum Candela = 2967.078 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.)