



IES INDOOR REPORT

PHOTOMETRIC FILENAME : PTDC-24-L38-935-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-L38-935-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	3161
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	101
Total Luminaire Watts	31.4
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	1356	1430	1503
55	1215	1330	1436
65	1068	1265	1438
75	827	1269	1571
85	499	1665	1908

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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	1209.299	1209.299	1209.299	1209.299	1209.299
5	1190.833	1189.192	1189.192	1185.088	1183.037
10	1187.140	1187.140	1189.192	1190.833	1190.833
15	1155.954	1157.595	1159.647	1162.519	1164.571
20	1079.629	1083.732	1088.656	1095.222	1097.274
25	1018.487	1022.180	1032.028	1040.646	1044.749
30	892.509	865.016	977.452	945.034	940.110
35	823.160	830.957	849.423	865.016	871.171
40	732.473	742.322	762.839	783.357	791.153
45	669.280	677.897	706.211	732.473	742.322
50	581.465	595.006	626.193	653.686	663.124
55	486.674	501.447	532.633	563.820	575.310
60	396.808	412.401	447.691	479.698	491.598
65	315.148	335.666	373.418	410.760	424.301
70	232.258	256.468	301.196	340.590	354.131
75	149.367	179.323	229.385	269.189	283.962
80	82.070	121.053	178.502	217.485	229.385
85	30.366	69.349	101.356	114.077	116.129
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	438.37	N.A.	13.90
0-30	908.52	N.A.	28.70
0-40	1438.5	N.A.	45.50
0-60	2456.65	N.A.	77.70
0-80	3066.47	N.A.	97.00
0-90	3161.00	N.A.	100.00
10-90	3047.33	N.A.	96.40
20-40	1000.13	N.A.	31.60
20-50	1540.7	N.A.	48.70
40-70	1386.81	N.A.	43.90
60-80	609.82	N.A.	19.30
70-80	241.16	N.A.	7.60
80-90	94.53	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	3161.00	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	113.67
10-20	324.69
20-30	470.15
30-40	529.98
40-50	540.57
50-60	477.58
60-70	368.66
70-80	241.16
80-90	94.53
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

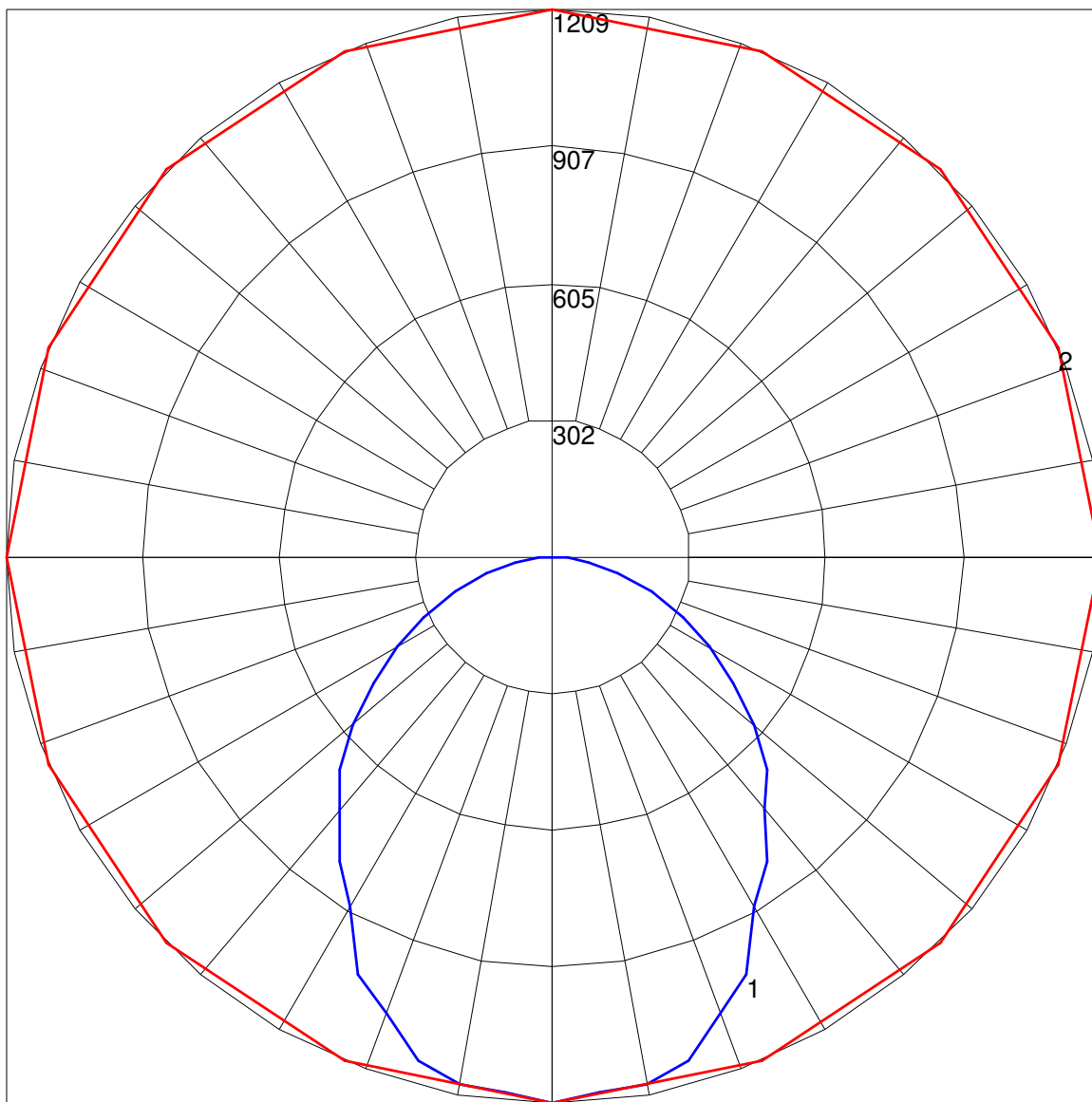
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UGR TABLE - CORRECTED

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	12.4	14.0	12.7	14.3	14.6	13.4	15.0	13.7	15.3	15.6
	3H	14.0	15.5	14.4	15.8	16.2	15.5	17.0	15.9	17.4	17.7
	4H	14.6	16.0	15.0	16.3	16.7	16.5	17.9	16.9	18.3	18.7
	6H	14.9	16.3	15.4	16.6	17.0	17.6	18.9	18.0	19.2	19.6
	8H	15.1	16.3	15.5	16.7	17.1	18.0	19.2	18.4	19.6	20.0
	12H	15.1	16.3	15.6	16.7	17.1	18.3	19.5	18.8	19.9	20.3
4H	2H	13.1	14.5	13.5	14.9	15.3	13.9	15.3	14.3	15.7	16.0
	3H	15.0	16.2	15.5	16.6	17.0	16.4	17.6	16.8	18.0	18.4
	4H	15.7	16.8	16.2	17.2	17.7	17.5	18.6	18.0	19.0	19.5
	6H	16.3	17.2	16.7	17.7	18.1	18.8	19.7	19.2	20.2	20.6
	8H	16.4	17.3	16.9	17.8	18.2	19.3	20.2	19.8	20.6	21.1
	12H	16.6	17.4	17.1	17.8	18.3	19.7	20.5	20.2	21.0	21.5
8H	4H	16.3	17.2	16.8	17.7	18.1	17.9	18.8	18.3	19.2	19.7
	6H	17.1	17.8	17.6	18.3	18.8	19.3	20.1	19.8	20.6	21.0
	8H	17.4	18.0	17.9	18.5	19.0	20.0	20.7	20.5	21.2	21.6
	12H	17.6	18.2	18.1	18.7	19.2	20.6	21.1	21.1	21.6	22.2
12H	4H	16.5	17.3	17.0	17.8	18.2	17.9	18.7	18.4	19.2	19.7
	6H	17.3	18.0	17.9	18.5	19.0	19.4	20.1	20.0	20.6	21.1
	8H	17.7	18.3	18.2	18.8	19.4	20.2	20.7	20.7	21.2	21.8

Maximum UGR = 22.2

POLAR GRAPH



Maximum Candela = 1209.299 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.)