



IES INDOOR REPORT

PHOTOMETRIC FILENAME : PTDC-24-L38-940-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-L38-940-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	3236
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	103
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	1388	1464	1539
55	1244	1362	1471
65	1093	1296	1472
75	846	1300	1609
85	511	1705	1954

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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	1238.092	1238.092	1238.092	1238.092	1238.092
5	1219.187	1217.506	1217.506	1213.305	1211.204
10	1215.405	1215.405	1217.506	1219.187	1219.187
15	1183.476	1185.157	1187.257	1190.198	1192.299
20	1105.334	1109.535	1114.577	1121.299	1123.399
25	1042.736	1046.517	1056.600	1065.423	1069.624
30	913.760	885.612	1000.724	967.535	962.494
35	842.760	850.742	869.647	885.612	891.913
40	749.913	759.996	781.002	802.008	809.990
45	685.215	694.037	723.025	749.913	759.996
50	595.309	609.173	641.102	669.250	678.913
55	498.262	513.386	545.315	577.244	589.007
60	406.255	422.220	458.350	491.120	503.303
65	322.652	343.658	382.309	420.540	434.403
70	237.788	262.575	308.368	348.699	362.563
75	152.923	183.592	234.847	275.598	290.723
80	84.024	123.935	182.752	222.663	234.847
85	31.089	71.000	103.769	116.793	118.894
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	448.81	N.A.	13.90
0-30	930.15	N.A.	28.70
0-40	1472.75	N.A.	45.50
0-60	2515.14	N.A.	77.70
0-80	3139.48	N.A.	97.00
0-90	3236.26	N.A.	100.00
10-90	3119.88	N.A.	96.40
20-40	1023.94	N.A.	31.60
20-50	1577.38	N.A.	48.70
40-70	1419.83	N.A.	43.90
60-80	624.34	N.A.	19.30
70-80	246.90	N.A.	7.60
80-90	96.78	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	3236.26	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	116.38
10-20	332.43
20-30	481.34
30-40	542.60
40-50	553.44
50-60	488.95
60-70	377.44
70-80	246.90
80-90	96.78
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	33	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

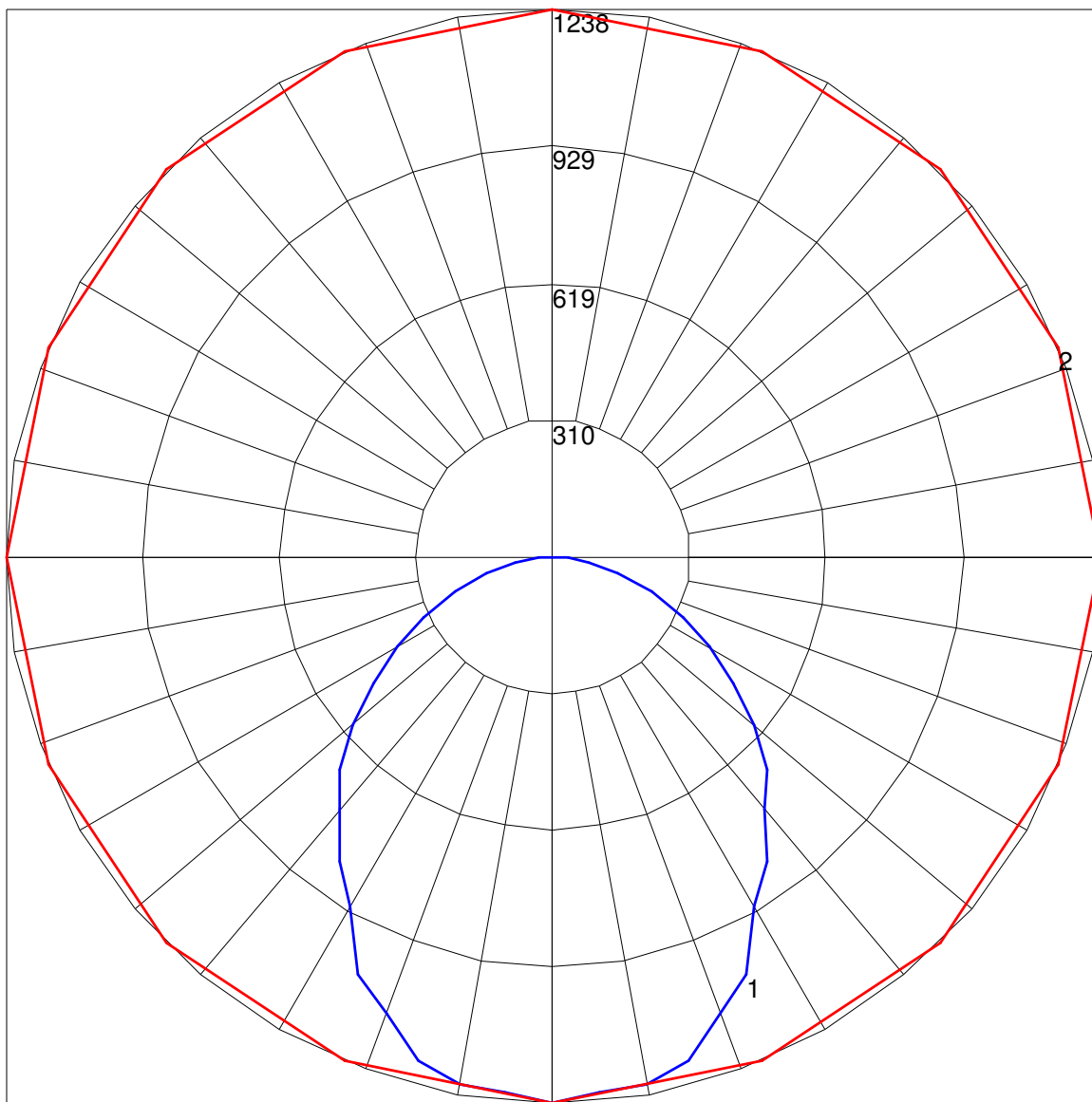
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UGR TABLE - CORRECTED

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	14.1	12.8	14.4	14.7	13.5	15.1	13.8	15.4	15.7
	3H	14.1	15.6	14.5	15.9	16.3	15.6	17.1	16.0	17.5	17.8
	4H	14.7	16.1	15.1	16.4	16.8	16.6	18.0	17.0	18.4	18.8
	6H	15.0	16.4	15.5	16.7	17.1	17.7	19.0	18.1	19.3	19.7
	8H	15.2	16.4	15.6	16.8	17.2	18.1	19.3	18.5	19.7	20.1
	12H	15.2	16.4	15.7	16.8	17.2	18.4	19.6	18.9	20.0	20.4
4H	2H	13.2	14.6	13.6	15.0	15.4	14.0	15.4	14.4	15.8	16.1
	3H	15.1	16.3	15.6	16.7	17.1	16.5	17.7	16.9	18.0	18.4
	4H	15.8	16.9	16.3	17.3	17.8	17.6	18.7	18.1	19.1	19.6
	6H	16.4	17.3	16.8	17.8	18.2	18.9	19.8	19.3	20.3	20.7
	8H	16.5	17.4	17.0	17.9	18.3	19.4	20.3	19.9	20.7	21.2
	12H	16.7	17.5	17.2	17.9	18.4	19.8	20.6	20.3	21.1	21.6
8H	4H	16.4	17.3	16.9	17.8	18.2	18.0	18.9	18.4	19.3	19.8
	6H	17.2	17.9	17.7	18.4	18.9	19.4	20.2	19.9	20.7	21.1
	8H	17.5	18.1	18.0	18.6	19.1	20.1	20.8	20.6	21.3	21.7
	12H	17.7	18.3	18.2	18.8	19.3	20.7	21.2	21.2	21.7	22.3
12H	4H	16.6	17.4	17.1	17.9	18.3	18.0	18.8	18.5	19.3	19.8
	6H	17.4	18.1	18.0	18.6	19.1	19.5	20.2	20.1	20.7	21.2
	8H	17.8	18.4	18.3	18.9	19.5	20.3	20.8	20.8	21.3	21.9

Maximum UGR = 22.3

POLAR GRAPH



Maximum Candela = 1238.092 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.)