

IES INDOOR REPORT

PHOTOMETRIC FILENAME : PTDC-22-L26-940-RA-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN FROM BALLABS TEST NO. 19562.0

[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC

[ISSUEDATE] 2022-05-03

[MANUFAC] WILLIAMS INDOOR

[OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO

[LUMINAIRE] 1-72 LED 22"ARRAY 2x2'RECESSED LUMINAIRE

[MORE] WHITE REFLECTOR w/CENTER FROSTED RIBBED ACRYLIC LENS

[MORE] ELECTRONIC 0-10V LED DRIVER

[LUMCAT] PTDC-22-L26-940-RA-DIM-UNV

[LAMPCAT] HLM 90 CRI 4000K CCT

[SEARCH_SOURCETYPE] LED

[SEARCH_APPLICATION] INDOOR

[SEARCH_MOUNTING] RECESSED

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	2264
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	106
Total Luminaire Watts	21.3
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.24
Spacing Criterion (90-270)	1.24
Spacing Criterion (Diagonal)	1.34
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	1.92 ft
Luminous Width (90-270)	1.93 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	2128	2207	2278
55	1799	1982	2115
65	1375	1720	1912
75	956	1525	1885
85	544	1244	1555

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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	865.364	865.364	865.364	865.364	865.364
5	868.274	863.037	861.873	858.963	858.963
10	856.635	851.398	850.816	847.906	847.324
15	836.267	830.447	829.865	828.701	828.119
20	807.169	801.932	801.350	801.932	801.932
25	766.432	761.195	764.687	767.014	764.687
30	716.384	714.057	717.548	721.622	718.712
35	658.771	658.189	665.754	668.664	671.574
40	592.428	592.428	605.231	610.469	615.125
45	516.774	516.774	535.979	548.200	553.438
50	437.047	437.629	463.235	479.529	487.095
55	354.410	360.811	390.491	407.949	416.679
60	273.518	286.321	316.001	335.205	344.516
65	199.610	216.487	249.658	270.608	277.592
70	134.431	155.382	188.553	210.085	218.232
75	84.965	105.334	135.595	157.127	167.603
80	45.974	63.433	90.203	105.334	115.809
85	16.295	28.516	37.245	37.245	46.556
90	0.000	0.000	0.000	0.000	0.000

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Zone	Lumens	%Lamp	%Fixt
0-20	316.17	N.A.	14.00
0-30	668.12	N.A.	29.50
0-40	1083.1	N.A.	47.80
0-60	1840.04	N.A.	81.30
0-80	2222.84	N.A.	98.20
0-90	2264.27	N.A.	100.00
10-90	2182.36	N.A.	96.40
20-40	766.93	N.A.	33.90
20-50	1178.43	N.A.	52.00
40-70	999.94	N.A.	44.20
60-80	382.81	N.A.	16.90
70-80	139.80	N.A.	6.20
80-90	41.42	N.A.	1.80
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	2264.27	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	81.91
10-20	234.27
20-30	351.94
30-40	414.99
40-50	411.50
50-60	345.43
60-70	243.01
70-80	139.80
80-90	41.42
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	109	104	100	97	106	102	98	95	98	95	92	94	91	89	90	88	87	84
2	100	91	85	79	97	90	83	78	86	81	76	83	79	75	80	76	73	71
3	91	81	73	66	89	79	72	66	76	70	65	73	68	63	71	66	62	60
4	83	72	63	57	81	70	62	56	68	61	55	66	60	55	63	58	54	52
5	77	64	55	49	75	63	55	49	61	54	48	59	53	48	57	52	47	45
6	71	58	49	43	69	57	49	43	55	48	42	54	47	42	52	46	42	40
7	66	53	44	38	64	52	44	38	50	43	38	49	42	37	48	42	37	35
8	62	48	40	34	60	47	39	34	46	39	34	45	38	34	44	38	33	31
9	58	44	36	31	56	44	36	31	43	35	30	41	35	30	40	34	30	28
10	54	41	33	28	53	40	33	28	39	32	28	38	32	28	38	32	27	26

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UGR TABLE - CORRECTED

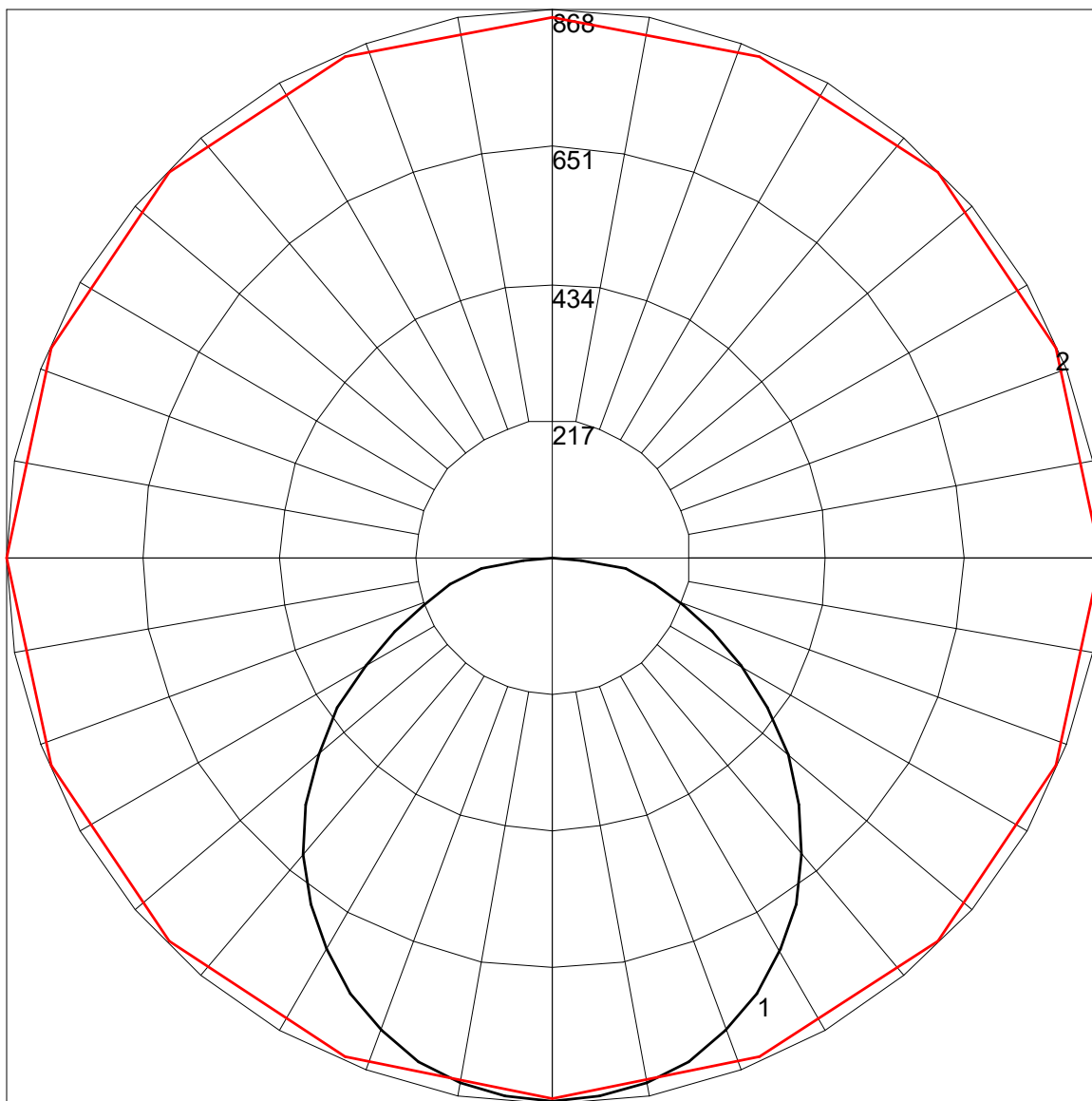
Reflectances

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	13.6	15.2	13.9	15.5	15.8	14.6	16.2	15.0	16.5	16.8
	3H	14.9	16.3	15.2	16.6	17.0	16.4	17.9	16.8	18.2	18.6
	4H	15.3	16.6	15.7	17.0	17.4	17.2	18.6	17.6	18.9	19.3
	6H	15.5	16.8	16.0	17.2	17.6	17.9	19.2	18.3	19.5	19.9
	8H	15.6	16.8	16.0	17.2	17.6	18.1	19.3	18.6	19.7	20.1
	12H	15.6	16.8	16.1	17.2	17.6	18.3	19.4	18.7	19.8	20.3
4H	2H	14.3	15.6	14.7	16.0	16.4	15.1	16.5	15.5	16.8	17.2
	3H	15.8	16.9	16.2	17.3	17.7	17.2	18.3	17.6	18.7	19.1
	4H	16.4	17.4	16.8	17.8	18.2	18.1	19.1	18.5	19.5	20.0
	6H	16.7	17.6	17.2	18.1	18.5	19.0	19.9	19.4	20.3	20.8
	8H	16.8	17.7	17.3	18.1	18.6	19.3	20.1	19.7	20.5	21.0
	12H	16.9	17.7	17.4	18.1	18.6	19.5	20.2	19.9	20.7	21.2
8H	4H	16.8	17.6	17.3	18.1	18.5	18.4	19.2	18.8	19.6	20.1
	6H	17.3	18.0	17.8	18.5	19.0	19.3	20.0	19.8	20.5	21.0
	8H	17.5	18.1	18.0	18.7	19.1	19.7	20.4	20.3	20.9	21.4
	12H	17.6	18.2	18.1	18.7	19.2	20.0	20.6	20.5	21.0	21.6
12H	4H	16.9	17.6	17.4	18.1	18.6	18.4	19.1	18.8	19.6	20.1
	6H	17.5	18.1	18.0	18.6	19.1	19.4	20.0	19.9	20.5	21.0
	8H	17.7	18.3	18.2	18.8	19.3	19.8	20.4	20.3	20.9	21.4

Maximum UGR = 21.6

POLAR GRAPH



Maximum Candela = 868.274 Located At Horizontal Angle = 0, Vertical Angle = 5
1 - Vertical Plane Through Horizontal Angles (90 - 270)
2 - Horizontal Cone Through Vertical Angle (5) (Through Max. Cd.)