IES INDOOR REPORT
PHOTOMETRIC FILENAME : PT-22-P47-835-RA-(P40)-POE PR_.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] 08-MAR-2023
[MANUFAC] WILLIAMS INDOOR
[OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO
[LUMINAIRE] RECESSED 2X2 LED LUMINAIRE
[MORE] WHITE REFLECTOR w/CENTER FROSTED RIBBED ACRYLIC LENS
[MORE] POE READY
[LUMCAT] PT-22-P47-835-RA-(P40)-POE PR
[LAMPCAT] HLM 80 CRI 3500K CCT

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	4012
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	135
Total Luminaire Watts	29.7
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	3770	3910	4037
55	3187	3511	3747
65	2436	3047	3388
75	1693	2702	3340
85	964	2204	2755

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	1533.231	1533.231	1533.231	1533.231	1533.231
5	1538.386	1529.107	1527.044	1521.889	1521.889
10	1517.765	1508.485	1507.454	1502.298	1501.267
15	1481.676	1471.365	1470.334	1468.272	1467.241
20	1430.122	1420.842	1419.811	1420.842	1420.842
25	1357.946	1348.666	1354.852	1358.977	1354.852
30	1269.272	1265.147	1271.334	1278.552	1273.396
35	1167.194	1166.163	1179.567	1184.722	1189.878
40	1049.650	1049.650	1072.334	1081.613	1089.862
45	915.608	915.608	949.634	971.287	980.567
50	774.349	775.380	820.748	849.618	863.022
55	627.934	639.276	691.861	722.794	738.260
60	484.612	507.296	559.882	593.908	610.405
65	353.664	383.565	442.338	479.457	491.830
70	238.182	275.301	334.073	372.223	386.659
75	150.539	186.627	240.244	278.394	296.954
80	81.456	112.389	159.819	186.627	205.187
85	28.871	50.523	65.990	65.990	82.487
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	560.19	N.A.	14.00
0-30	1183.75	N.A.	29.50
0-40	1919.02	N.A.	47.80
0-60	3260.13	N.A.	81.30
0-80	3938.38	N.A.	98.20
0-90	4011.77	N.A.	100.00
10-90	3866.65	N.A.	96.40
20-40	1358.83	N.A.	33.90
20-50	2087.92	N.A.	52.00
40-70	1771.67	N.A.	44.20
60-80	678.25	N.A.	16.90
70-80	247.69	N.A.	6.20
80-90	73.39	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	4011.77	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	145.12
10-20	415.07
20-30	623.56
30-40	735.27
40-50	729.09
50-60	612.02
60-70	430.56
70-80	247.69
80-90	73.39
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	86	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	33	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	15.6	17.2	15.9	17.5	17.8	16.6	18.2	17.0	18.5	18.8
	3H	16.9	18.3	17.2	18.6	19.0	18.4	19.9	18.8	20.2	20.6
	4H	17.3	18.6	17.7	19.0	19.4	19.2	20.6	19.6	20.9	21.3
	6H	17.5	18.8	18.0	19.2	19.6	19.9	21.2	20.3	21.5	21.9
	8H	17.6	18.8	18.0	19.2	19.6	20.1	21.3	20.6	21.7	22.1
	12H	17.6	18.8	18.1	19.2	19.6	20.3	21.4	20.7	21.8	22.3
4H	2H	16.3	17.6	16.7	18.0	18.4	17.1	18.5	17.5	18.8	19.2
	3H	17.8	18.9	18.2	19.3	19.7	19.2	20.3	19.6	20.7	21.1
	4H	18.4	19.4	18.8	19.8	20.2	20.1	21.1	20.5	21.5	22.0
	6H	18.7	19.6	19.2	20.1	20.5	21.0	21.9	21.4	22.3	22.8
	8H	18.8	19.7	19.3	20.1	20.6	21.3	22.1	21.7	22.5	23.0
	12H	18.9	19.7	19.4	20.1	20.6	21.5	22.2	21.9	22.7	23.2
8H	4H	18.8	19.6	19.3	20.1	20.5	20.4	21.2	20.8	21.6	22.1
	6H	19.3	20.0	19.8	20.5	21.0	21.3	22.0	21.8	22.5	23.0
	8H	19.5	20.1	20.0	20.7	21.1	21.7	22.4	22.3	22.9	23.4
	12H	19.6	20.2	20.1	20.7	21.2	22.0	22.6	22.5	23.0	23.6
12H	4H	18.9	19.6	19.4	20.1	20.6	20.4	21.1	20.8	21.6	22.1
	6H	19.5	20.1	20.0	20.6	21.1	21.4	22.0	21.9	22.5	23.0
	8H	19.7	20.3	20.2	20.8	21.3	21.8	22.4	22.3	22.9	23.4

Maximum UGR = 23.6

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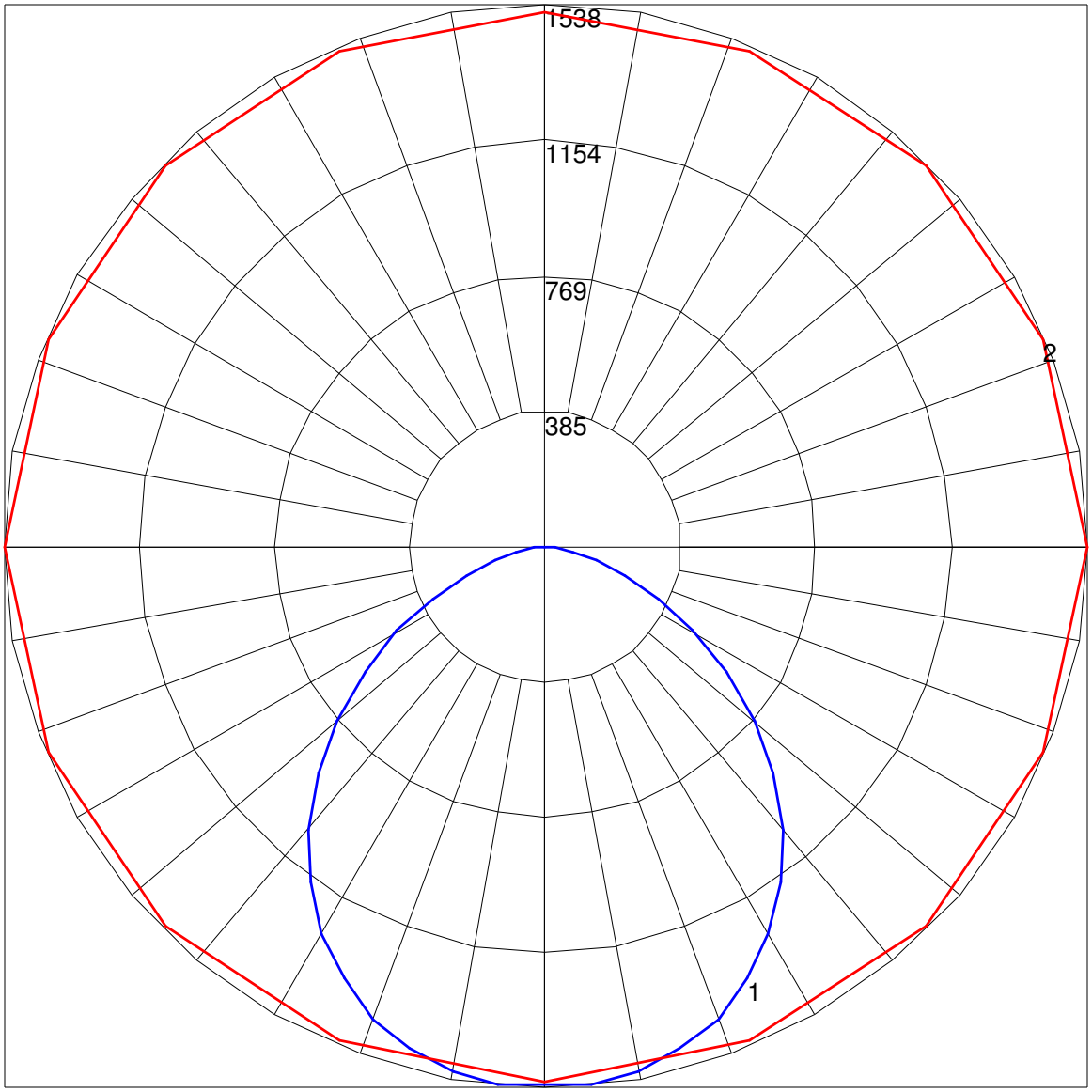
POLAR GRAPH



Maximum Candela = 1538.386 Located At Horizontal Angle = 0, Vertical Angle = 5
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (5) (Through Max. Cd.)

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