IES INDOOR REPORT
PHOTOMETRIC FILENAME : PT-24-L49-835-RA-(L48)-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] 6-28-2023
[MANUFAC] WILLIAMS INDOOR
[OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO
[LUMINAIRE] 2-22" LED ARRAYS 2x4'RECESSED LUMINAIRE
[MORE] WHITE REFLECTOR w/RIBBED FROSTED ACRYLIC CENTER DIFFUSER
[LUMCAT] PT-24-L49-835-RA-(L48)-DIM-UNV
[_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	4989
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	145
Total Luminaire Watts	34.45
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	2139	2258	2373
55	1918	2099	2267
65	1686	1997	2269
75	1305	2003	2480
85	788	2629	3012

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	1908.683	1908.683	1908.683	1908.683	1908.683
5	1879.537	1876.947	1876.947	1870.470	1867.232
10	1873.708	1873.708	1876.947	1879.537	1879.537
15	1824.485	1827.076	1830.314	1834.848	1838.087
20	1704.019	1710.496	1718.268	1728.630	1731.869
25	1607.516	1613.345	1628.889	1642.490	1648.967
30	1408.682	1365.288	1542.749	1491.583	1483.811
35	1299.225	1311.531	1340.676	1365.288	1375.003
40	1156.090	1171.634	1204.018	1236.401	1248.707
45	1056.349	1069.950	1114.640	1156.090	1171.634
50	917.748	939.121	988.344	1031.738	1046.634
55	768.136	791.452	840.675	889.898	908.033
60	626.297	650.908	706.608	757.126	775.908
65	497.410	529.794	589.379	648.317	669.690
70	366.581	404.794	475.390	537.566	558.939
75	235.752	283.032	362.047	424.871	448.187
80	129.534	191.063	281.736	343.265	362.047
85	47.928	109.456	159.974	180.052	183.291
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	691.89	N.A.	13.90
0-30	1433.95	N.A.	28.70
0-40	2270.44	N.A.	45.50
0-60	3877.42	N.A.	77.70
0-80	4839.92	N.A.	97.00
0-90	4989.13	N.A.	100.00
10-90	4809.71	N.A.	96.40
20-40	1578.55	N.A.	31.60
20-50	2431.75	N.A.	48.70
40-70	2188.86	N.A.	43.90
60-80	962.50	N.A.	19.30
70-80	380.63	N.A.	7.60
80-90	149.20	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	4989.13	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	179.42
10-20	512.48
20-30	742.05
30-40	836.49
40-50	853.20
50-60	753.78
60-70	581.88
70-80	380.63
80-90	149.20
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	13.9	15.6	14.3	15.9	16.2	15.0	16.6	15.3	16.9	17.2
	3H	15.6	17.1	16.0	17.4	17.8	17.1	18.6	17.5	19.0	19.3
	4H	16.2	17.6	16.6	17.9	18.3	18.1	19.5	18.5	19.9	20.3
	6H	16.5	17.9	17.0	18.2	18.6	19.2	20.5	19.6	20.8	21.2
	8H	16.7	17.9	17.1	18.3	18.7	19.6	20.8	20.0	21.2	21.6
	12H	16.7	17.9	17.2	18.3	18.7	19.9	21.1	20.4	21.5	21.9
4H	2H	14.7	16.1	15.1	16.5	16.9	15.5	16.9	15.9	17.3	17.6
	3H	16.6	17.8	17.1	18.2	18.6	18.0	19.2	18.4	19.6	19.9
	4H	17.3	18.4	17.8	18.8	19.3	19.1	20.2	19.6	20.6	21.1
	6H	17.9	18.8	18.3	19.3	19.7	20.4	21.3	20.8	21.8	22.2
	8H	18.0	18.9	18.5	19.4	19.8	20.9	21.8	21.4	22.2	22.7
	12H	18.2	19.0	18.7	19.4	19.9	21.3	22.1	21.8	22.6	23.1
8H	4H	17.9	18.8	18.4	19.3	19.7	19.5	20.4	19.9	20.8	21.3
	6H	18.7	19.4	19.2	19.9	20.4	20.9	21.7	21.4	22.2	22.6
	8H	19.0	19.6	19.5	20.1	20.6	21.6	22.3	22.1	22.8	23.2
	12H	19.2	19.8	19.7	20.3	20.8	22.2	22.7	22.7	23.2	23.8
12H	4H	18.1	18.9	18.6	19.4	19.8	19.5	20.3	20.0	20.8	21.3
	6H	18.9	19.6	19.5	20.1	20.6	21.0	21.7	21.6	22.2	22.7
	8H	19.3	19.9	19.8	20.4	21.0	21.8	22.3	22.3	22.8	23.4

Maximum UGR = 23.8

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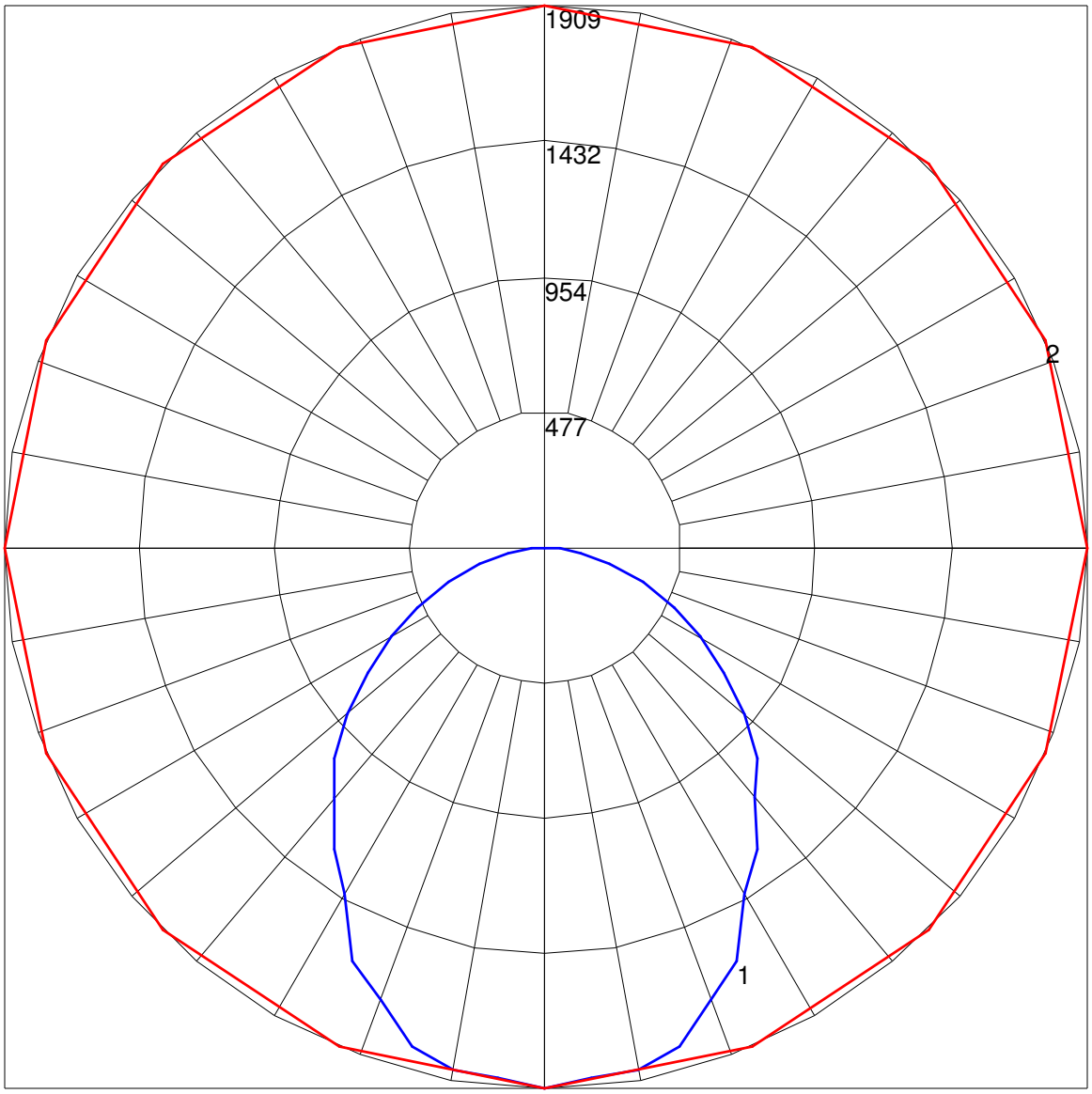
POLAR GRAPH



Maximum Candela = 1908.683 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.)