H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : PT-22-L43-840-RA-EM10W-DIM-UNV_EMER MODE ONLY.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] 01-19-2024
[MANUFAC] WILLIAMS INDOOR
[OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO
[LUMINAIRE] 2x2'RECESSED LED LUMINAIRE
[MORE] WHITE REFLECTOR w/CENTER FROSTED RIBBED ACRYLIC LENS
[MORE] ELECTRONIC 0-10V LED DRIVER
[LUMCAT] PT-22-L43-840-RA-EM10W-DIM-UNV
[LAMPCAT] 22 INCH HLM LED ARRAY

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	1340
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	134
Total Luminaire Watts	10
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	1259	1306	1348
55	1064	1173	1251
65	814	1018	1132
75	566	903	1116
85	322	736	920

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	512.100	512.100	512.100	512.100	512.100
5	513.822	510.722	510.033	508.312	508.312
10	506.934	503.835	503.490	501.768	501.424
15	494.881	491.437	491.092	490.404	490.059
20	477.661	474.562	474.217	474.562	474.562
25	453.554	450.455	452.521	453.899	452.521
30	423.937	422.560	424.626	427.037	425.315
35	389.843	389.499	393.976	395.698	397.420
40	350.583	350.583	358.160	361.259	364.014
45	305.813	305.813	317.178	324.410	327.510
50	258.633	258.977	274.130	283.773	288.250
55	209.730	213.518	231.082	241.414	246.579
60	161.861	169.437	187.001	198.365	203.876
65	118.124	128.111	147.741	160.139	164.271
70	79.553	91.951	111.581	124.323	129.144
75	50.280	62.334	80.242	92.984	99.183
80	27.206	37.538	53.380	62.334	68.533
85	9.643	16.875	22.041	22.041	27.551
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	187.10	N.A.	14.00
0-30	395.37	N.A.	29.50
0-40	640.95	N.A.	47.80
0-60	1088.88	N.A.	81.30
0-80	1315.42	N.A.	98.20
0-90	1339.93	N.A.	100.00
10-90	1291.46	N.A.	96.40
20-40	453.85	N.A.	33.90
20-50	697.37	N.A.	52.00
40-70	591.74	N.A.	44.20
60-80	226.54	N.A.	16.90
70-80	82.73	N.A.	6.20
80-90	24.51	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	1339.93	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	48.47
10-20	138.63
20-30	208.27
30-40	245.58
40-50	243.52
50-60	204.42
60-70	143.81
70-80	82.73
80-90	24.51
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	11.8	13.4	12.1	13.7	14.0	12.8	14.4	13.2	14.7	15.0
	3H	13.1	14.5	13.4	14.8	15.2	14.6	16.1	15.0	16.4	16.8
	4H	13.5	14.8	13.9	15.2	15.6	15.4	16.8	15.8	17.1	17.5
	6H	13.7	15.0	14.2	15.4	15.8	16.1	17.4	16.5	17.7	18.1
	8H	13.8	15.0	14.2	15.4	15.8	16.3	17.5	16.8	17.9	18.3
	12H	13.8	15.0	14.3	15.4	15.8	16.5	17.6	16.9	18.0	18.5
4H	2H	12.5	13.8	12.9	14.2	14.6	13.3	14.7	13.7	15.0	15.4
	3H	14.0	15.1	14.4	15.5	15.9	15.4	16.5	15.8	16.9	17.3
	4H	14.6	15.6	15.0	16.0	16.4	16.3	17.3	16.7	17.7	18.2
	6H	14.9	15.8	15.4	16.3	16.7	17.2	18.1	17.6	18.5	19.0
	8H	15.0	15.9	15.5	16.3	16.8	17.5	18.3	17.9	18.7	19.2
	12H	15.1	15.9	15.6	16.3	16.8	17.7	18.4	18.2	18.9	19.4
8H	4H	15.0	15.8	15.5	16.3	16.8	16.6	17.4	17.0	17.8	18.3
	6H	15.5	16.2	16.0	16.7	17.2	17.5	18.2	18.0	18.7	19.2
	8H	15.7	16.3	16.2	16.9	17.3	17.9	18.6	18.5	19.1	19.6
	12H	15.8	16.4	16.3	16.9	17.4	18.2	18.8	18.7	19.2	19.8
12H	4H	15.1	15.8	15.6	16.3	16.8	16.6	17.3	17.0	17.8	18.3
	6H	15.7	16.3	16.2	16.8	17.3	17.6	18.2	18.1	18.7	19.2
	8H	15.9	16.5	16.4	17.0	17.5	18.0	18.6	18.5	19.1	19.6

Maximum UGR = 19.8

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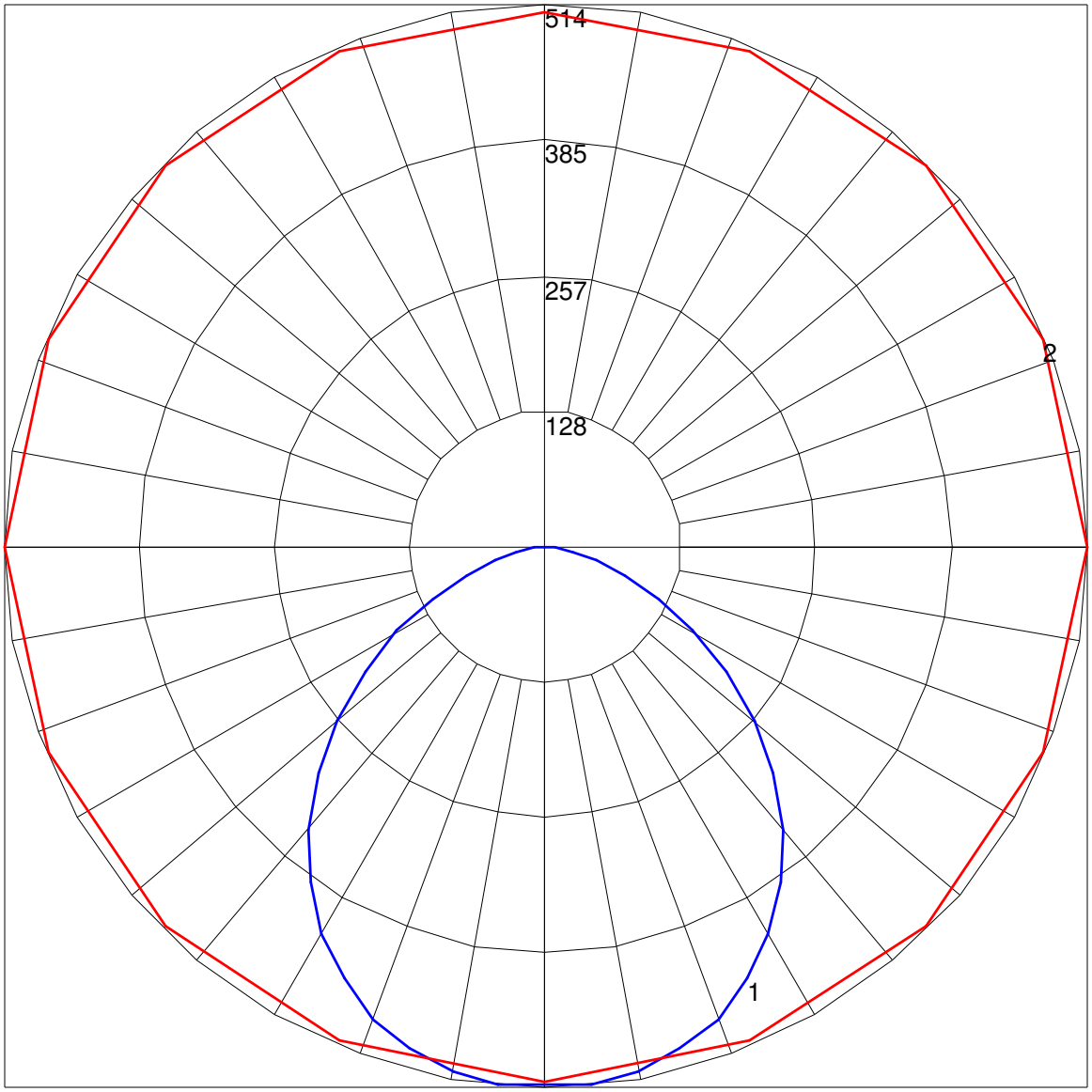
POLAR GRAPH



Maximum Candela = 513.822 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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