H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : MX4WD-2-00-L8-840-F-(L6)-EM10WRM-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST]GEN FROM BALLABS TEST NO. 20654.0
[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC
[ISSUEDATE] 01-17-2024
[MANUFAC] WILLIAMS INDOOR
[OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO
[LUMINAIRE] 2-72 LED 23.75"ARRAYS 2'WALL MOUNT DOWNLIGHT LUMINAIRE
[MORE] WHITE ALUM BODY w/WHITE REFL & FLAT FROST LENS
[MORE] ADVANCE #XI036C100V054DSM5 @ 375mA
[LUMCAT] MX4WD-2-00-L8-840-F-(L6)-EM10WRM-DIM-UNV
[LAMPCAT] MX2472_2835 REV A 10560314

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	1207
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	121
Total Luminaire Watts	10
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.20
Spacing Criterion (90-270)	1.22
Spacing Criterion (Diagonal)	1.32
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	2.00 ft
Luminous Width (90-270)	0.31 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	6819	6891	7053
55	6217	6438	6504
65	5315	5435	5555
75	4216	4265	4167
85	2330	2038	1747

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0	112.5	135.0	157.5	180.0
0	477.186	477.186	477.186	477.186	477.186	477.186	477.186	477.186	477.186
5	477.925	477.186	477.186	480.879	480.879	476.447	475.709	474.970	474.231
10	468.322	468.322	467.583	473.493	472.015	469.061	465.367	464.629	466.845
15	453.548	454.287	455.026	458.719	458.719	455.764	452.071	450.594	452.071
20	434.343	435.820	437.297	441.730	441.730	438.775	433.604	432.127	432.865
25	411.444	410.705	414.398	415.876	417.353	414.398	409.966	408.489	406.273
30	379.681	386.329	385.590	388.545	390.761	386.329	381.897	379.681	376.726
35	350.133	353.827	353.827	360.475	358.998	359.736	348.656	349.395	345.701
40	317.632	319.109	319.848	326.496	327.234	325.018	318.370	313.938	312.461
45	280.698	281.436	283.652	288.823	290.300	285.868	282.914	282.914	278.482
50	244.502	242.286	248.196	251.889	253.367	249.673	247.457	242.286	240.070
55	207.569	212.001	214.955	221.603	217.171	214.217	206.830	206.091	204.614
60	169.157	169.896	172.112	174.328	177.283	175.805	175.805	167.680	166.941
65	130.746	131.485	133.701	135.917	136.655	135.917	132.223	131.485	127.791
70	96.028	98.244	96.028	97.506	98.983	100.460	97.506	95.289	93.073
75	63.526	62.788	64.265	62.788	62.788	61.310	63.526	60.572	59.094
80	33.241	33.241	32.502	31.024	31.024	31.024	31.024	33.241	31.763
85	11.819	12.558	10.341	9.603	8.864	9.603	9.603	11.080	10.341
90	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	173.50	N.A.	14.40
0-30	363.46	N.A.	30.10
0-40	584.82	N.A.	48.40
0-60	993.19	N.A.	82.30
0-80	1192.97	N.A.	98.80
0-90	1207.29	N.A.	100.00
10-90	1162.04	N.A.	96.30
20-40	411.33	N.A.	34.10
20-50	630.78	N.A.	52.20
40-70	541.15	N.A.	44.80
60-80	199.78	N.A.	16.50
70-80	67.00	N.A.	5.50
80-90	14.32	N.A.	1.20
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	1207.29	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	45.25
10-20	128.25
20-30	189.96
30-40	221.36
40-50	219.45
50-60	188.91
60-70	132.78
70-80	67.00
80-90	14.32
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	105	101	97	107	103	99	96	98	95	93	95	92	90	91	89	87	85
2	100	92	86	80	97	90	84	79	87	82	77	83	79	76	80	77	74	72
3	91	81	73	67	89	80	72	67	77	70	65	74	69	64	71	67	63	61
4	84	72	64	57	82	71	63	57	68	62	56	66	60	55	64	59	55	52
5	77	65	56	50	75	64	55	49	62	54	49	60	53	48	58	52	48	46
6	71	58	50	43	70	58	49	43	56	48	43	54	48	43	53	47	42	40
7	66	53	45	39	65	52	44	38	51	43	38	49	43	38	48	42	38	36
8	62	49	40	34	60	48	40	34	47	39	34	45	39	34	44	38	34	32
9	58	45	37	31	56	44	36	31	43	36	31	42	35	31	41	35	31	29
10	54	41	33	28	53	41	33	28	40	33	28	39	32	28	38	32	28	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	18.4	20.0	18.8	20.3	20.6	18.6	20.2	19.0	20.5	20.8
	3H	19.9	21.4	20.3	21.7	22.0	20.1	21.6	20.5	21.9	22.2
	4H	20.4	21.8	20.8	22.1	22.5	20.6	22.0	21.0	22.3	22.7
	6H	20.8	22.0	21.2	22.4	22.8	20.9	22.1	21.3	22.5	22.9
	8H	20.8	22.0	21.3	22.4	22.8	20.9	22.1	21.4	22.5	22.9
	12H	20.9	22.0	21.3	22.4	22.8	21.0	22.1	21.4	22.5	22.9
4H	2H	18.9	20.3	19.3	20.6	21.0	19.1	20.5	19.5	20.8	21.2
	3H	20.7	21.8	21.1	22.2	22.6	20.8	22.0	21.3	22.4	22.8
	4H	21.3	22.3	21.7	22.7	23.2	21.4	22.4	21.9	22.9	23.3
	6H	21.7	22.6	22.2	23.1	23.5	21.8	22.7	22.3	23.1	23.6
	8H	21.8	22.7	22.3	23.1	23.6	21.9	22.7	22.3	23.2	23.6
	12H	21.9	22.7	22.4	23.1	23.6	21.9	22.7	22.4	23.2	23.6
8H	4H	21.5	22.4	22.0	22.8	23.3	21.6	22.5	22.1	22.9	23.4
	6H	22.1	22.7	22.6	23.2	23.7	22.1	22.8	22.6	23.3	23.7
	8H	22.2	22.8	22.7	23.3	23.8	22.2	22.8	22.7	23.3	23.8
	12H	22.3	22.9	22.9	23.4	23.9	22.3	22.8	22.8	23.3	23.9
12H	4H	21.6	22.3	22.1	22.8	23.2	21.7	22.4	22.2	22.9	23.4
	6H	22.1	22.7	22.6	23.2	23.7	22.1	22.7	22.6	23.2	23.7
	8H	22.3	22.8	22.8	23.3	23.9	22.3	22.8	22.8	23.3	23.9

Maximum UGR = 23.9

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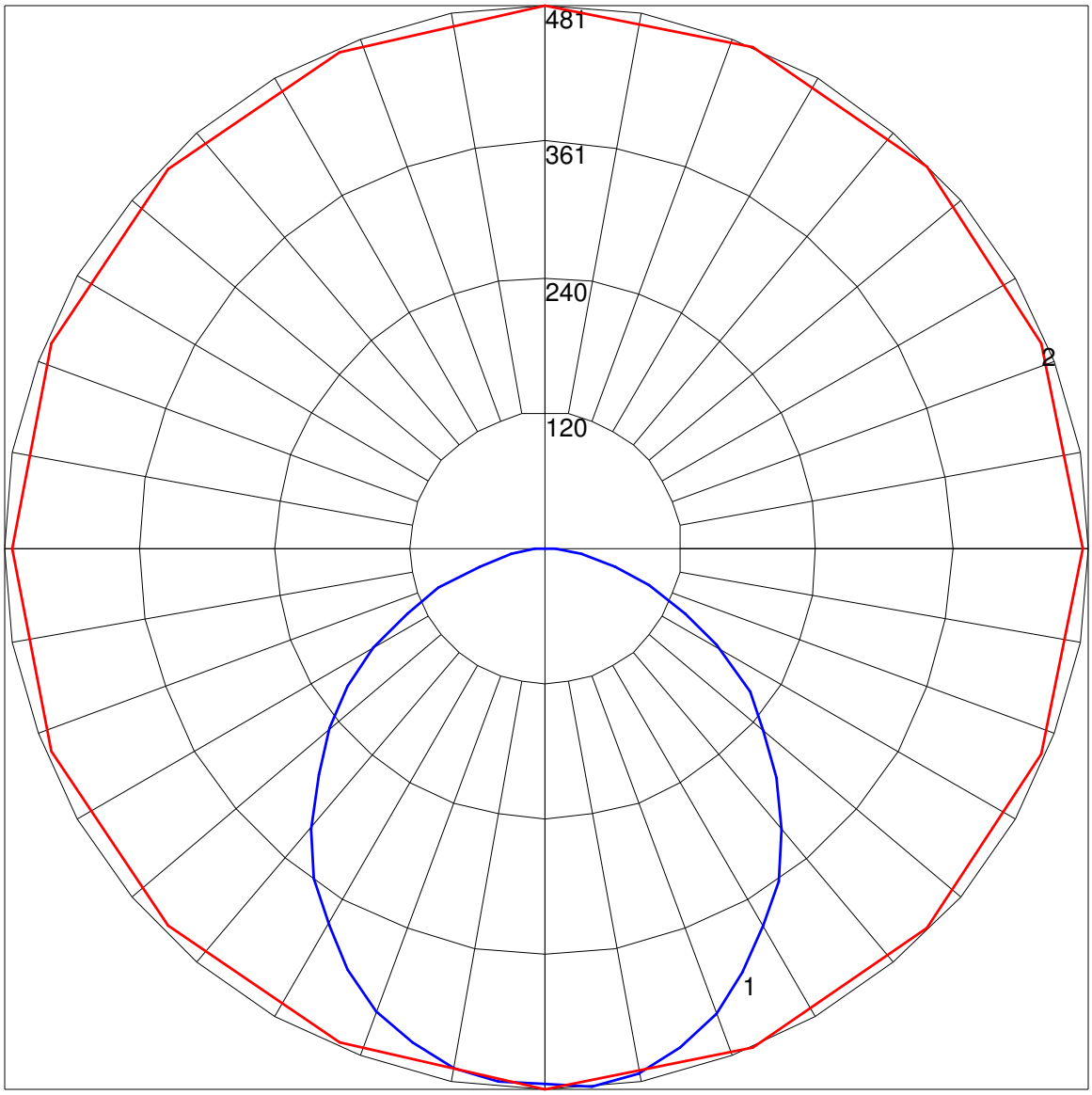
POLAR GRAPH



Maximum Candela = 480.879 Located At Horizontal Angle = 67.5, Vertical Angle = 5
1 - Vertical Plane Through Horizontal Angles (67.5 - 247.5) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (5) (Through Max. Cd.)

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