H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : MX4WD-2-00-L8-840-F-(L7)-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-(L7)-EM10WRM-DIM-UNV
[LAMPCAT] MX2472_2835 REV A 10560314

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	1210
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	6836	6908	7070
55	6232	6454	6520
65	5328	5448	5569
75	4227	4276	4178
85	2335	2043	1751

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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	478.372	478.372	478.372	478.372	478.372	478.372	478.372	478.372	478.372
5	479.113	478.372	478.372	482.075	482.075	477.632	476.891	476.151	475.410
10	469.486	469.486	468.745	474.670	473.189	470.226	466.524	465.783	468.005
15	454.676	455.416	456.157	459.859	459.859	456.897	453.195	451.714	453.195
20	435.422	436.903	438.384	442.827	442.827	439.865	434.682	433.201	433.941
25	412.466	411.726	415.428	416.909	418.390	415.428	410.985	409.504	407.283
30	380.624	387.289	386.548	389.510	391.732	387.289	382.846	380.624	377.662
35	351.004	354.706	354.706	361.371	359.890	360.630	349.523	350.263	346.561
40	318.421	319.902	320.643	327.307	328.048	325.826	319.162	314.718	313.237
45	281.395	282.136	284.357	289.541	291.022	286.579	283.617	283.617	279.174
50	245.110	242.889	248.813	252.515	253.996	250.294	248.072	242.889	240.667
55	208.084	212.528	215.490	222.154	217.711	214.749	207.344	206.603	205.122
60	169.578	170.318	172.540	174.761	177.723	176.242	176.242	168.097	167.356
65	131.071	131.812	134.033	136.255	136.995	136.255	132.552	131.812	128.109
70	96.267	98.488	96.267	97.748	99.229	100.710	97.748	95.526	93.305
75	63.684	62.944	64.425	62.944	62.944	61.463	63.684	60.722	59.241
80	33.323	33.323	32.583	31.102	31.102	31.102	31.102	33.323	31.842
85	11.848	12.589	10.367	9.627	8.886	9.627	9.627	11.108	10.367
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	173.93	N.A.	14.40
0-30	364.36	N.A.	30.10
0-40	586.28	N.A.	48.40
0-60	995.66	N.A.	82.30
0-80	1195.94	N.A.	98.80
0-90	1210.3	N.A.	100.00
10-90	1164.93	N.A.	96.30
20-40	412.35	N.A.	34.10
20-50	632.35	N.A.	52.20
40-70	542.49	N.A.	44.80
60-80	200.28	N.A.	16.50
70-80	67.17	N.A.	5.50
80-90	14.36	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	1210.3	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	45.36
10-20	128.56
20-30	190.44
30-40	221.91
40-50	220.00
50-60	189.38
60-70	133.11
70-80	67.17
80-90	14.36
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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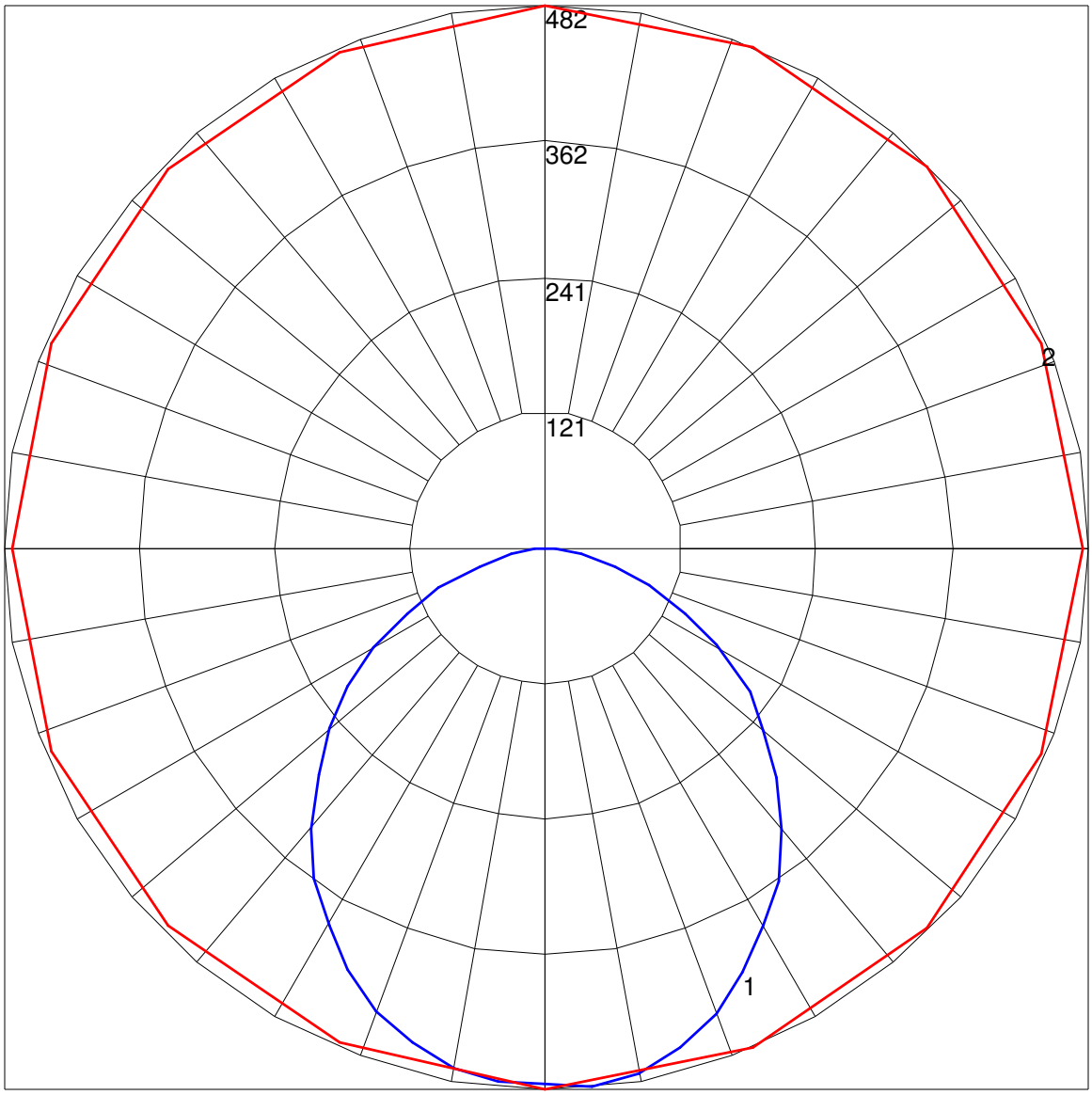
POLAR GRAPH



Maximum Candela = 482.075 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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