H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : MX4WD-4-00-L12-835-F-DIM-UNV.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST]GEN FROM BALLABS TEST NO. 29653.0
[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC
[ISSUEDATE] 02-NOV-2018
[MANUFAC] WILLIAMS INDOOR
[OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO
[LUMINAIRE] 2-72 LED 23.75"ARRAYS 4'DOWNLIGHT LUMINAIRE
[MORE] WHITE ALUM BODY w/WHITE REFL & FLAT FROST LENS
[MORE] ADVANCE #XI036C100V054DSM5 @375mA
[LUMCAT] MX4WD-4-00-L12-835-F-DIM-UNV
[LAMPCAT] MX2472_2835 REV A 10560314

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	4858
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	112
Total Luminaire Watts	43.2
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.22
Spacing Criterion (90-270)	1.16
Spacing Criterion (Diagonal)	1.28
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	4.00 ft
Luminous Width (90-270)	0.32 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	13948	13526	13314
55	12810	12289	11941
65	10903	10726	10372
75	8276	8661	8180
85	4001	5144	4858

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	1976.785	1976.785	1976.785	1976.785	1976.785
5	1985.623	1965.001	1956.163	1950.271	1950.271
10	1950.271	1929.648	1920.810	1914.918	1909.026
15	1882.512	1867.782	1853.052	1847.160	1838.321
20	1802.969	1782.347	1770.563	1752.887	1746.995
25	1699.858	1676.290	1664.506	1643.884	1640.938
30	1596.747	1570.233	1546.665	1540.773	1526.043
35	1452.392	1434.716	1414.093	1393.471	1393.471
40	1316.875	1299.198	1272.684	1266.792	1246.170
45	1166.627	1148.951	1131.275	1113.599	1113.599
50	1025.218	1001.650	986.919	975.135	960.405
55	869.078	848.456	833.726	818.996	810.158
60	707.047	695.263	686.425	674.640	665.802
65	545.015	542.069	536.177	521.447	518.501
70	403.606	400.660	391.822	385.930	380.038
75	253.358	262.196	265.143	256.304	250.412
80	129.625	135.517	135.517	138.463	141.409
85	41.244	44.190	53.029	47.136	50.082
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	709.21	N.A.	14.60
0-30	1476.68	N.A.	30.40
0-40	2364.05	N.A.	48.70
0-60	3988.06	N.A.	82.10
0-80	4794.62	N.A.	98.70
0-90	4857.56	N.A.	100.00
10-90	4671.57	N.A.	96.20
20-40	1654.84	N.A.	34.10
20-50	2530.64	N.A.	52.10
40-70	2154.56	N.A.	44.40
60-80	806.56	N.A.	16.60
70-80	276.00	N.A.	5.70
80-90	62.94	N.A.	1.30
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	4857.56	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	185.99
10-20	523.22
20-30	767.47
30-40	887.38
40-50	875.79
50-60	748.22
60-70	530.55
70-80	276.00
80-90	62.94
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	94	92	90	91	89	87	85
2	100	92	85	80	97	90	84	79	87	82	77	83	79	75	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	56	49	62	54	49	60	53	48	58	52	48	46
6	72	59	50	44	70	58	49	43	56	48	43	54	48	43	53	47	42	40
7	66	53	45	39	65	52	44	39	51	44	38	49	43	38	48	42	38	36
8	62	49	40	35	60	48	40	35	47	39	34	45	39	34	44	38	34	32
9	58	45	37	31	57	44	36	31	43	36	31	42	36	31	41	35	31	29
10	54	41	34	28	53	41	33	28	40	33	28	39	33	28	38	32	28	26

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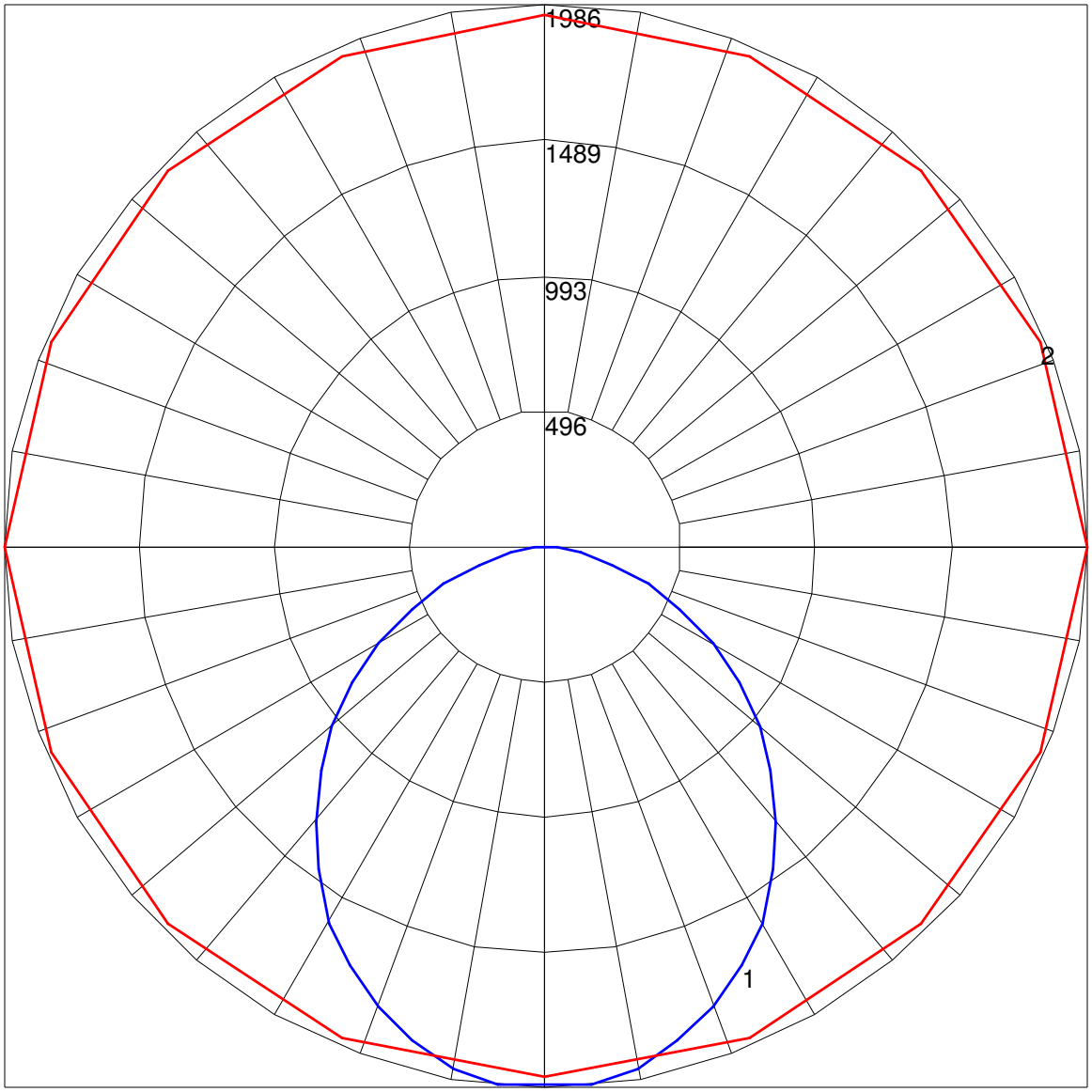
POLAR GRAPH



Maximum Candela = 1985.623 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.)