H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : GL-4-L150-935-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] GEN FROM BALLABS TEST NO. 19438.0
[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC
[ISSUEDATE] 2023-07-17
[MANUFAC] WILLIAMS INDOOR
[OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO
[LUMINAIRE] 48 INCH, LOW PROFILE HIGHBAY LUMINAIRE
[MORE] WHITE REFLECTOR w/OPEN BOTTOM
[MORE] 0-10V DIMMING DRIVERS
[LUMCAT] GL-4-L150-935-DIM-UNV
[LAMPCAT] 22 INCH HLM LED ARRAYS
[_SEARCH_SOURCETYPE] LED
[_SEARCH_APPLICATION] Indoor, Commercial, Industrial, Manufacturing, Warehouse, High Bay
[_SEARCH_MOUNTING] Pendant, Suspended

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	12039
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	125
Total Luminaire Watts	96
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.24
Spacing Criterion (90-270)	1.24
Spacing Criterion (Diagonal)	1.42
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	4.00 ft
Luminous Width (90-270)	1.05 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	11185	11210	11333
55	10327	10776	8124
65	9713	7781	7921
75	7445	4962	4584
85	4084	2643	3005

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	4378.850	4378.850	4378.850	4378.850	4378.850
5	4315.843	4314.637	4315.843	4317.350	4318.556
10	4311.924	4308.909	4311.924	4317.350	4317.350
15	4221.784	4227.211	4239.270	4240.777	4239.270
20	4057.785	4061.704	4068.638	4074.064	4074.064
25	3825.653	3836.506	3844.646	3829.572	3829.572
30	3604.374	3616.734	3607.087	3604.374	3602.867
35	3368.022	3384.301	3373.448	3380.382	3381.588
40	3217.890	3238.390	3221.809	3231.456	3241.103
45	3094.890	3111.169	3101.824	3125.037	3135.890
50	2735.538	2761.464	2786.185	2805.177	2787.692
55	2317.701	2357.193	2418.693	1902.576	1823.290
60	1942.069	1980.356	1981.863	1569.151	1576.085
65	1606.232	1626.732	1286.674	1324.960	1309.887
70	1177.240	1231.806	1006.608	880.895	706.042
75	753.976	622.837	502.550	512.197	464.264
80	419.345	375.631	215.852	150.132	132.345
85	139.279	90.139	90.139	100.992	102.500
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	1603.9	N.A.	13.30
0-30	3374.55	N.A.	28.00
0-40	5505.89	N.A.	45.70
0-60	9877.63	N.A.	82.00
0-80	11915.11	N.A.	99.00
0-90	12039.07	N.A.	100.00
10-90	11626.42	N.A.	96.60
20-40	3902.00	N.A.	32.40
20-50	6267.13	N.A.	52.10
40-70	5778.68	N.A.	48.00
60-80	2037.47	N.A.	16.90
70-80	630.53	N.A.	5.20
80-90	123.96	N.A.	1.00
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	12039.07	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	412.65
10-20	1191.24
20-30	1770.65
30-40	2131.35
40-50	2365.13
50-60	2006.61
60-70	1406.94
70-80	630.53
80-90	123.96
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	86	81	77	83	79	75	80	77	73	71
3	91	81	73	66	89	79	72	66	76	70	65	73	68	64	71	66	62	60
4	83	72	63	56	81	70	62	56	68	61	55	65	59	54	63	58	54	52
5	77	64	55	49	75	63	54	48	61	53	48	59	52	47	57	51	47	45
6	71	58	49	42	69	57	48	42	55	47	42	53	46	41	52	46	41	39
7	66	52	43	37	64	51	43	37	50	42	37	48	42	37	47	41	36	34
8	61	48	39	33	59	47	39	33	46	38	33	44	38	33	43	37	33	31
9	57	44	35	30	56	43	35	30	42	35	30	41	34	30	40	34	29	28
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	20.5	22.2	20.9	22.5	22.8	19.0	20.6	19.4	20.9	21.2
	3H	22.3	23.8	22.7	24.1	24.5	20.5	21.9	20.8	22.2	22.6
	4H	22.8	24.2	23.2	24.5	24.9	20.8	22.2	21.2	22.5	22.9
	6H	23.1	24.4	23.6	24.8	25.2	20.9	22.2	21.3	22.6	23.0
	8H	23.2	24.4	23.7	24.8	25.2	20.9	22.2	21.4	22.5	22.9
	12H	23.3	24.4	23.7	24.8	25.2	21.0	22.1	21.4	22.5	22.9
4H	2H	20.9	22.3	21.3	22.6	23.0	19.7	21.0	20.0	21.4	21.7
	3H	22.9	24.1	23.3	24.5	24.9	21.3	22.5	21.7	22.9	23.3
	4H	23.5	24.5	23.9	24.9	25.4	21.8	22.8	22.2	23.2	23.7
	6H	24.0	24.8	24.4	25.3	25.7	21.9	22.8	22.4	23.3	23.7
	8H	24.1	24.9	24.5	25.4	25.8	22.0	22.8	22.4	23.2	23.7
	12H	24.1	24.9	24.6	25.4	25.8	22.0	22.7	22.5	23.2	23.7
8H	4H	23.6	24.4	24.1	24.9	25.3	22.0	22.9	22.5	23.3	23.8
	6H	24.1	24.8	24.6	25.3	25.8	22.2	22.9	22.7	23.4	23.9
	8H	24.3	24.9	24.8	25.4	25.9	22.2	22.9	22.7	23.4	23.8
	12H	24.4	24.9	24.9	25.4	26.0	22.3	22.9	22.8	23.4	23.9
12H	4H	23.6	24.3	24.1	24.8	25.3	22.0	22.8	22.5	23.3	23.7
	6H	24.1	24.7	24.6	25.2	25.7	22.2	22.9	22.7	23.3	23.8
	8H	24.3	24.8	24.8	25.3	25.9	22.3	22.8	22.8	23.3	23.9

Maximum UGR = 26.0

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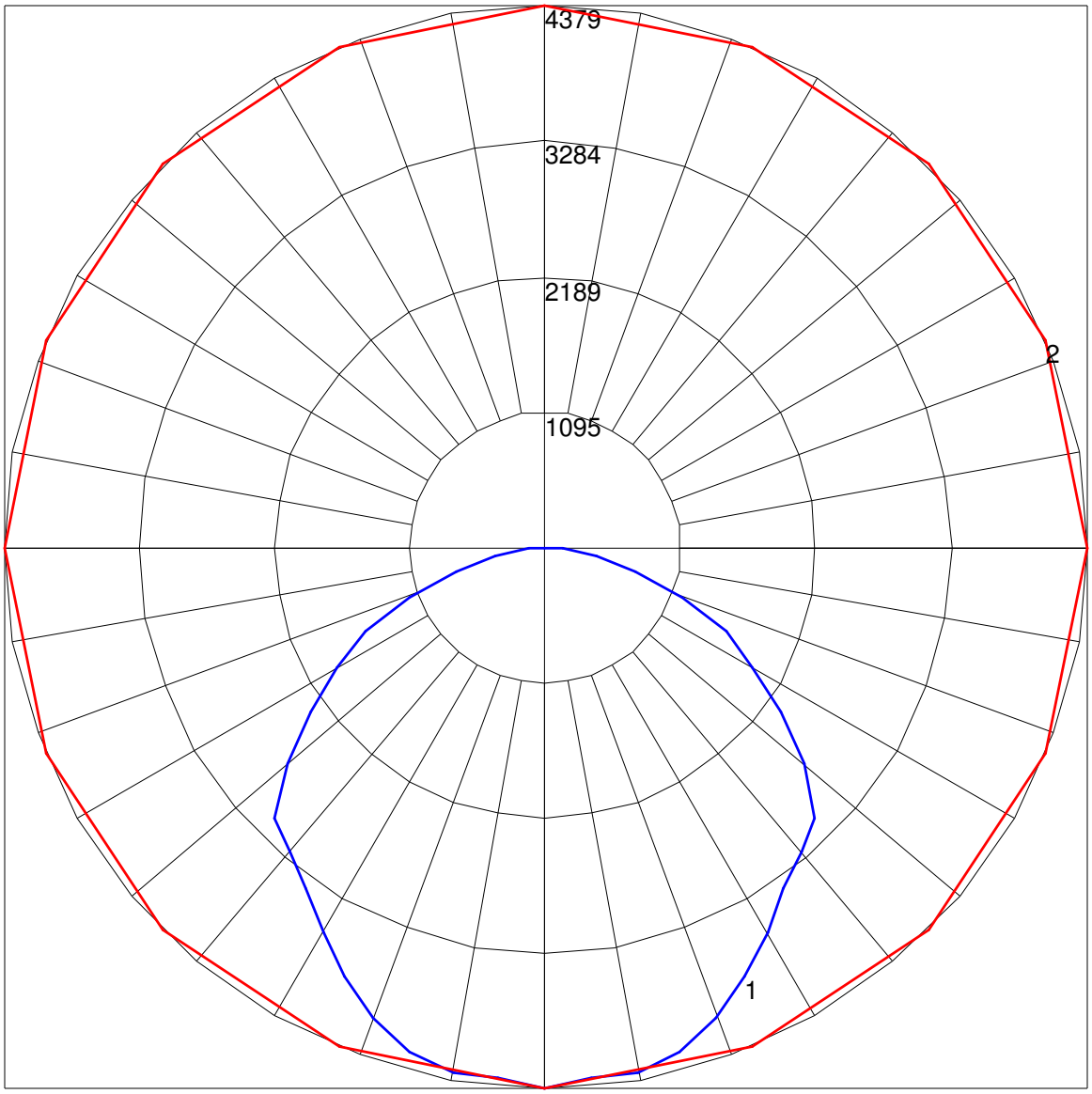
POLAR GRAPH



Maximum Candela = 4378.85 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.)