H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : GL-4-L200-835-SAF118-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] GEN FROM BALLABS TEST NO. 19726.0
[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 LED HIGHBAY LUMINAIRE
[MORE] WHITE REFLECTOR w/.118"THK FROSTED ACRYLIC LENS
[MORE] 0-10V LED DRIVERS
[LUMCAT] GL-4-L200-835-SAF118-DIM-UNV
[LAMPCAT] 22 INCH HLM LED ARRAYS
[_SEARCH_SOURCETYPE] LED
[_SEARCH_APPLICATION] Indoor, Commercial, Industrial, Manufacturing, High Bay
[_SEARCH_MOUNTING] Cable, Pendant, Suspended

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	16721
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	126
Total Luminaire Watts	133
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.32
Spacing Criterion (90-270)	1.26
Spacing Criterion (Diagonal)	1.38
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	3.83 ft
Luminous Width (90-270)	1.00 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	17765	16927	14736
55	16062	13732	12699
65	12647	10501	10067
75	8720	7140	7120
85	3114	2857	3094

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	6456.688	6456.688	6456.688	6456.688	6456.688
5	6555.249	6460.973	6418.732	6385.062	6375.267
10	6499.540	6392.408	6364.860	6326.293	6317.722
15	6394.857	6289.562	6267.523	6217.936	6211.815
20	6220.997	6145.699	6113.253	6038.567	6052.647
25	5996.939	5942.454	5897.153	5810.223	5831.037
30	5721.457	5674.931	5640.648	5531.068	5516.375
35	5381.083	5311.907	5303.336	5157.637	5050.505
40	4968.472	4899.908	4853.382	4626.874	4402.203
45	4477.502	4424.854	4266.299	3945.515	3714.110
50	3913.682	3864.095	3559.228	3272.727	3144.169
55	3283.746	3215.182	2807.468	2665.442	2596.265
60	2589.531	2526.477	2148.148	2023.263	2041.016
65	1905.112	1835.935	1581.879	1497.398	1516.376
70	1318.029	1191.919	1100.704	1037.037	1049.893
75	804.408	698.500	658.708	623.814	656.872
80	382.614	329.966	310.989	304.255	323.232
85	96.725	89.991	88.766	92.440	96.113
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	2382.27	N.A.	14.20
0-30	5097.06	N.A.	30.50
0-40	8367.48	N.A.	50.00
0-60	14186.53	N.A.	84.80
0-80	16582.53	N.A.	99.20
0-90	16720.85	N.A.	100.00
10-90	16108.67	N.A.	96.30
20-40	5985.21	N.A.	35.80
20-50	9206.14	N.A.	55.10
40-70	7474.67	N.A.	44.70
60-80	2396.00	N.A.	14.30
70-80	740.37	N.A.	4.40
80-90	138.32	N.A.	0.80
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	16720.85	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	612.18
10-20	1770.09
20-30	2714.79
30-40	3270.42
40-50	3220.92
50-60	2598.12
60-70	1655.63
70-80	740.37
80-90	138.32
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	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86
2	101	93	87	81	98	91	85	80	88	83	79	84	80	77	81	78	75	73
3	92	82	75	68	90	81	74	68	78	72	67	75	70	66	73	68	64	62
4	85	73	65	59	82	72	64	58	69	63	57	67	61	57	65	60	56	54
5	78	66	57	51	76	65	57	50	63	55	50	61	54	49	59	53	49	47
6	72	59	51	45	70	58	50	44	57	49	44	55	48	44	53	48	43	41
7	67	54	45	39	65	53	45	39	52	44	39	50	44	39	49	43	38	37
8	62	49	41	35	61	49	41	35	47	40	35	46	40	35	45	39	35	33
9	58	45	37	32	57	45	37	32	44	36	32	42	36	31	41	36	31	29
10	55	42	34	29	53	41	34	29	40	33	29	39	33	29	38	33	28	27

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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	21.8	23.4	22.2	23.7	24.0	20.4	21.9	20.7	22.3	22.6
	3H	23.1	24.5	23.5	24.8	25.2	21.6	23.0	22.0	23.4	23.7
	4H	23.4	24.8	23.8	25.1	25.5	22.0	23.4	22.4	23.7	24.1
	6H	23.6	24.9	24.1	25.2	25.6	22.3	23.5	22.7	23.8	24.2
	8H	23.7	24.8	24.1	25.2	25.6	22.3	23.5	22.7	23.9	24.3
	12H	23.7	24.8	24.1	25.2	25.6	22.3	23.4	22.7	23.8	24.2
4H	2H	22.1	23.4	22.5	23.8	24.2	20.9	22.2	21.3	22.6	22.9
	3H	23.6	24.6	24.0	25.0	25.4	22.3	23.4	22.8	23.8	24.2
	4H	24.0	25.0	24.4	25.4	25.8	22.8	23.8	23.3	24.2	24.7
	6H	24.3	25.1	24.7	25.6	26.0	23.1	24.0	23.6	24.4	24.9
	8H	24.3	25.1	24.8	25.6	26.0	23.2	24.0	23.7	24.4	24.9
	12H	24.4	25.1	24.8	25.5	26.0	23.2	23.9	23.7	24.4	24.9
8H	4H	24.1	24.9	24.6	25.3	25.8	23.0	23.8	23.5	24.2	24.7
	6H	24.4	25.1	24.9	25.6	26.0	23.3	24.0	23.8	24.5	25.0
	8H	24.5	25.1	25.0	25.6	26.1	23.4	24.0	24.0	24.5	25.0
	12H	24.6	25.1	25.1	25.6	26.1	23.5	24.0	24.0	24.5	25.1
12H	4H	24.1	24.8	24.6	25.3	25.8	23.0	23.7	23.5	24.2	24.7
	6H	24.4	25.0	24.9	25.5	26.0	23.4	24.0	23.9	24.4	25.0
	8H	24.5	25.0	25.0	25.5	26.1	23.5	24.0	24.0	24.5	25.1

Maximum UGR = 26.1

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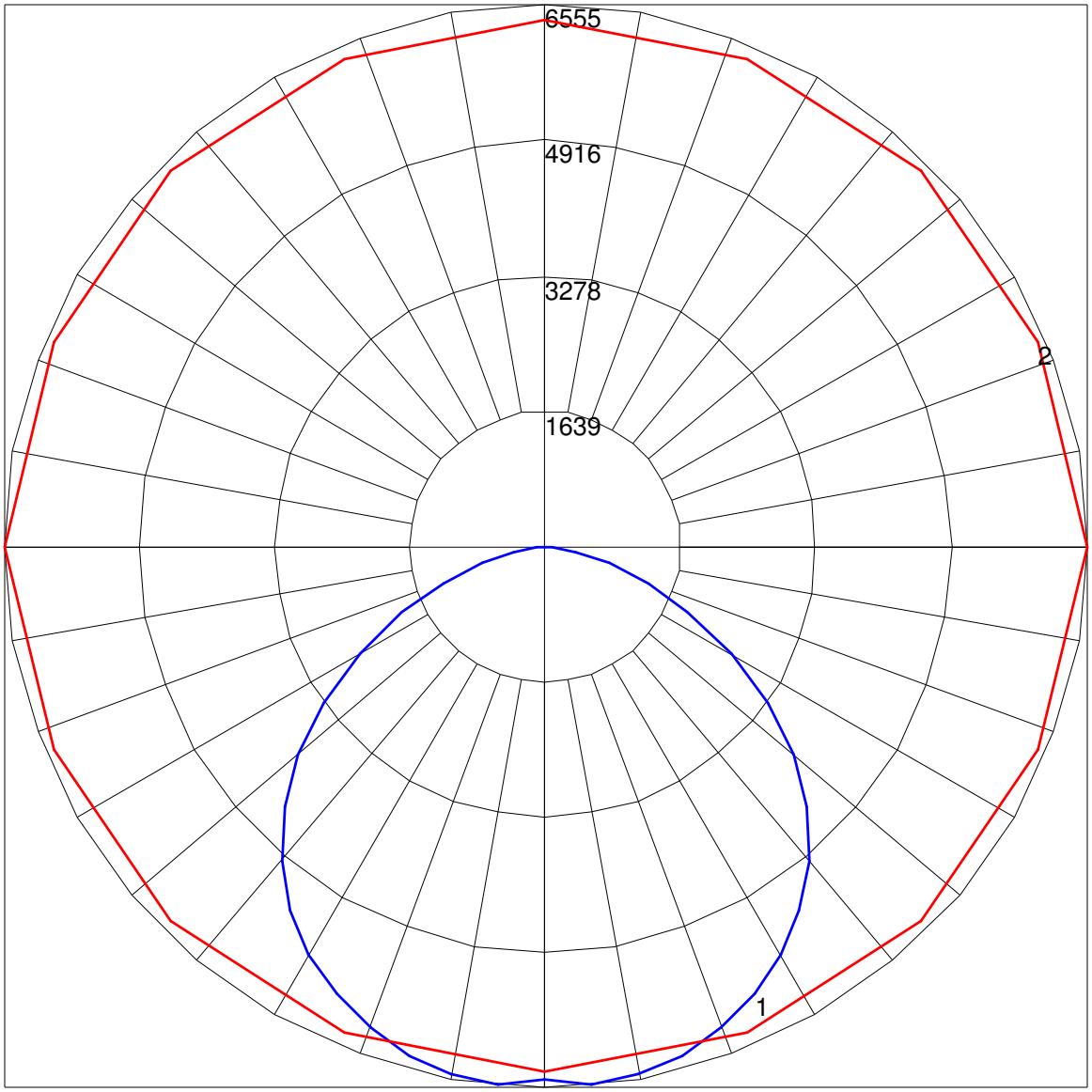
POLAR GRAPH



Maximum Candela = 6555.249 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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