H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : GL-4-L200-950-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-L200-950-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	17282
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	130
Total Luminaire Watts	133
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	16056	16092	16269
55	14823	15469	11661
65	13942	11169	11370
75	10687	7123	6580
85	5862	3794	4314

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	6285.631	6285.631	6285.631	6285.631	6285.631
5	6195.187	6193.456	6195.187	6197.351	6199.082
10	6189.562	6185.234	6189.562	6197.351	6197.351
15	6060.171	6067.960	6085.270	6087.434	6085.270
20	5824.757	5830.383	5840.336	5848.125	5848.125
25	5491.543	5507.122	5518.806	5497.169	5497.169
30	5173.908	5191.650	5177.802	5173.908	5171.744
35	4834.635	4858.003	4842.424	4852.377	4854.108
40	4619.128	4648.554	4624.753	4638.601	4652.449
45	4442.567	4465.936	4452.520	4485.842	4501.421
50	3926.734	3963.951	3999.436	4026.699	4001.599
55	3326.949	3383.639	3471.919	2731.058	2617.246
60	2787.748	2842.706	2844.870	2252.441	2262.394
65	2305.669	2335.096	1846.959	1901.917	1880.280
70	1689.872	1768.199	1444.938	1264.483	1013.490
75	1082.297	894.053	721.387	735.235	666.428
80	601.949	539.201	309.846	215.507	189.975
85	199.929	129.391	129.391	144.970	147.134
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	2302.32	N.A.	13.30
0-30	4844.00	N.A.	28.00
0-40	7903.45	N.A.	45.70
0-60	14178.88	N.A.	82.00
0-80	17103.57	N.A.	99.00
0-90	17281.51	N.A.	100.00
10-90	16689.17	N.A.	96.60
20-40	5601.13	N.A.	32.40
20-50	8996.17	N.A.	52.10
40-70	8295.02	N.A.	48.00
60-80	2924.69	N.A.	16.90
70-80	905.10	N.A.	5.20
80-90	177.95	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	17281.51	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	592.34
10-20	1709.98
20-30	2541.69
30-40	3059.45
40-50	3395.04
50-60	2880.39
60-70	2019.6
70-80	905.10
80-90	177.95
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	21.8	23.5	22.2	23.8	24.1	20.3	21.9	20.7	22.2	22.5
	3H	23.6	25.1	24.0	25.4	25.8	21.8	23.2	22.1	23.5	23.9
	4H	24.1	25.5	24.5	25.8	26.2	22.1	23.5	22.5	23.8	24.2
	6H	24.4	25.7	24.9	26.1	26.5	22.2	23.5	22.6	23.9	24.3
	8H	24.5	25.7	25.0	26.1	26.5	22.2	23.5	22.7	23.8	24.2
	12H	24.6	25.7	25.0	26.1	26.5	22.3	23.4	22.7	23.8	24.2
4H	2H	22.2	23.6	22.6	23.9	24.3	21.0	22.3	21.3	22.7	23.0
	3H	24.2	25.4	24.6	25.8	26.2	22.6	23.8	23.0	24.2	24.6
	4H	24.8	25.8	25.2	26.2	26.7	23.1	24.1	23.5	24.5	25.0
	6H	25.3	26.1	25.7	26.6	27.0	23.2	24.1	23.7	24.6	25.0
	8H	25.4	26.2	25.8	26.7	27.1	23.3	24.1	23.7	24.5	25.0
	12H	25.4	26.2	25.9	26.7	27.1	23.3	24.0	23.8	24.5	25.0
8H	4H	24.9	25.7	25.4	26.2	26.6	23.3	24.2	23.8	24.6	25.1
	6H	25.4	26.1	25.9	26.6	27.1	23.5	24.2	24.0	24.7	25.2
	8H	25.6	26.2	26.1	26.7	27.2	23.5	24.2	24.0	24.7	25.1
	12H	25.7	26.2	26.2	26.7	27.3	23.6	24.2	24.1	24.7	25.2
12H	4H	24.9	25.6	25.4	26.1	26.6	23.3	24.1	23.8	24.6	25.0
	6H	25.4	26.0	25.9	26.5	27.0	23.5	24.2	24.0	24.6	25.1
	8H	25.6	26.1	26.1	26.6	27.2	23.6	24.1	24.1	24.6	25.2

Maximum UGR = 27.3

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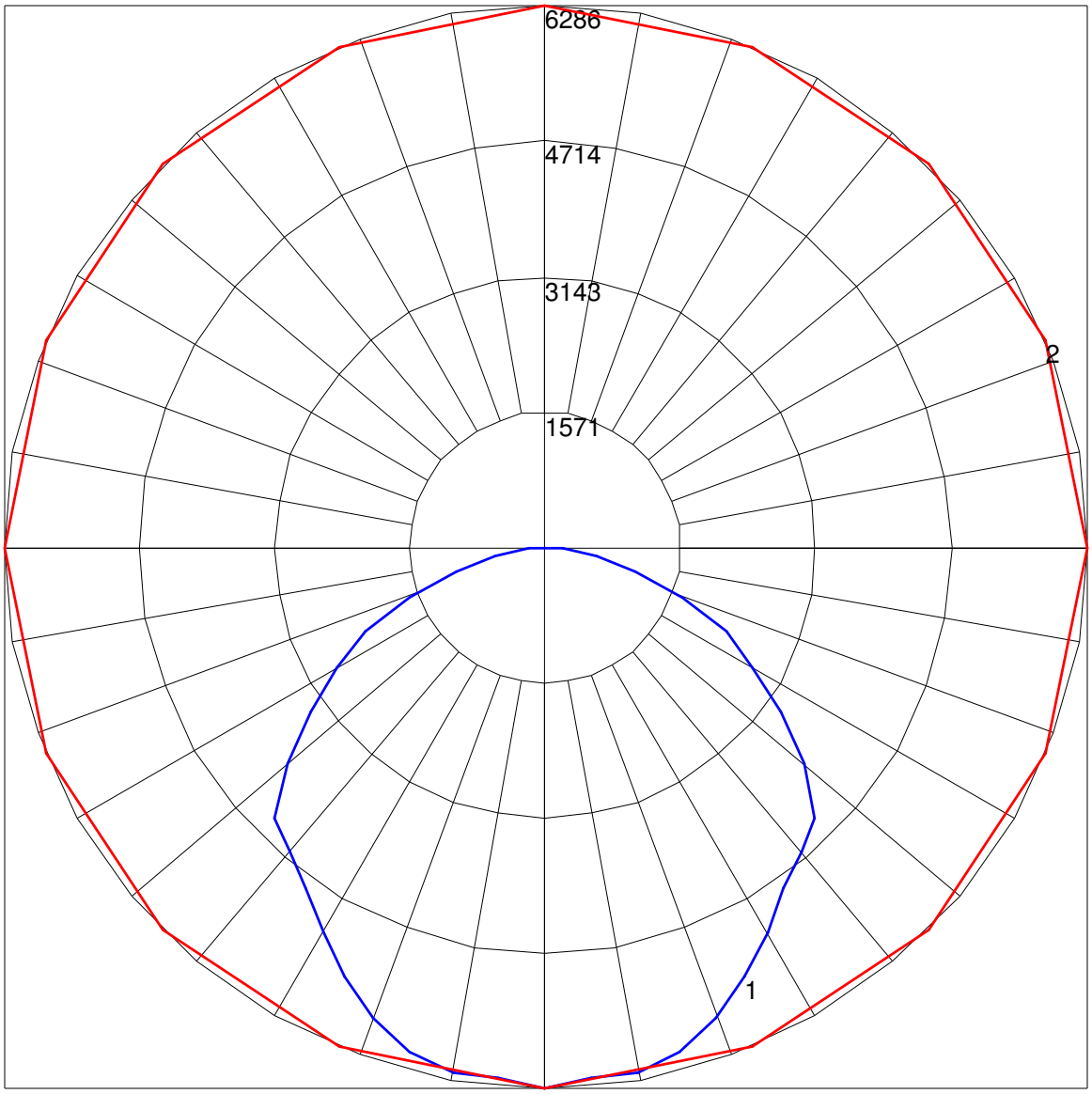
POLAR GRAPH



Maximum Candela = 6285.631 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.)

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