H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : GL-4-L200-950-ND-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] GEN FROM BALLABS TEST NO. 19459.0
[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 REFL w/CLEAR ACRYLIC ROD DIFFUSERS OVER LED
[MORE] 0-10V UNIVERSAL VOLTAGE 120-277 DRIVERS
[LUMCAT] GL-4-L200-950-ND-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	16417
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	125
Total Luminaire Watts	131
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.32
Spacing Criterion (90-270)	0.58
Spacing Criterion (Diagonal)	0.72
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	4.00 ft
Luminous Width (90-270)	1.04 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	40435	4315	3190
55	27709	3203	2394
65	16768	2428	2464
75	8211	2682	2237
85	3148	991	991

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	16557.818	16557.818	16557.818	16557.818	16557.818
5	16187.686	16059.021	15801.104	15587.837	15464.460
10	16059.021	15532.024	14365.815	13362.934	13177.868
15	15840.467	14680.133	12460.517	10767.311	10206.826
20	16109.547	13446.948	9400.173	6860.951	6053.712
25	15380.446	11591.589	6883.277	4652.498	3990.961
30	15033.227	9293.246	4181.315	2567.422	2214.328
35	13710.153	6664.723	2471.658	1619.767	1468.777
40	12818.899	4568.484	1603.317	1216.147	1138.008
45	11081.629	2847.665	1182.659	924.742	874.216
50	8547.695	1911.173	930.617	756.714	712.063
55	6160.051	1418.251	712.063	582.811	532.285
60	4237.716	1008.756	555.198	487.634	454.146
65	2746.613	622.174	397.745	420.658	403.620
70	1625.642	448.271	341.931	353.094	313.731
75	823.690	336.056	269.080	240.879	224.429
80	397.745	246.755	168.028	106.339	89.889
85	106.339	78.726	33.488	33.488	33.488
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	4973.98	N.A.	30.30
0-30	8722.38	N.A.	53.10
0-40	11670.25	N.A.	71.10
0-60	15190.22	N.A.	92.50
0-80	16335.84	N.A.	99.50
0-90	16417.21	N.A.	100.00
10-90	14946.65	N.A.	91.00
20-40	6696.26	N.A.	40.80
20-50	8835.32	N.A.	53.80
40-70	4295.17	N.A.	26.20
60-80	1145.62	N.A.	7.00
70-80	370.42	N.A.	2.30
80-90	81.37	N.A.	0.50
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	16417.21	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	1470.56
10-20	3503.43
20-30	3748.39
30-40	2947.87
40-50	2139.06
50-60	1380.92
60-70	775.20
70-80	370.42
80-90	81.37
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	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90
2	105	98	93	89	102	97	92	88	93	89	86	90	87	84	87	85	82	81
3	98	90	84	79	96	88	83	78	86	81	77	83	79	75	81	77	74	72
4	92	82	76	70	90	81	75	70	79	73	69	77	72	68	75	71	67	66
5	86	76	69	64	84	75	68	63	73	67	63	71	66	62	69	65	62	60
6	81	70	63	58	79	69	63	58	68	62	57	66	61	57	65	60	56	55
7	76	65	58	53	75	65	58	53	63	57	53	62	56	52	61	56	52	51
8	72	61	54	49	71	60	54	49	59	53	49	58	53	49	57	52	48	47
9	68	57	50	46	67	57	50	46	56	50	45	55	49	45	54	49	45	44
10	65	54	47	43	64	53	47	43	52	47	42	51	46	42	51	46	42	41

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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	19.2	20.5	19.5	20.8	21.1	10.2	11.5	10.5	11.8	12.1
	3H	21.0	22.2	21.4	22.5	22.9	12.2	13.4	12.6	13.7	14.1
	4H	21.5	22.6	21.9	23.0	23.3	13.0	14.0	13.4	14.4	14.8
	6H	21.8	22.8	22.3	23.2	23.6	13.3	14.3	13.7	14.6	15.0
	8H	21.9	22.9	22.3	23.2	23.6	13.3	14.3	13.8	14.7	15.1
	12H	21.9	22.8	22.4	23.2	23.6	13.3	14.2	13.8	14.6	15.1
4H	2H	19.0	20.1	19.4	20.4	20.8	10.8	11.9	11.2	12.2	12.6
	3H	20.9	21.8	21.3	22.2	22.6	13.2	14.0	13.6	14.4	14.8
	4H	21.5	22.3	21.9	22.7	23.1	14.0	14.8	14.4	15.2	15.7
	6H	21.9	22.6	22.4	23.0	23.5	14.4	15.1	14.9	15.5	16.0
	8H	22.0	22.6	22.5	23.1	23.6	14.5	15.1	14.9	15.6	16.0
	12H	22.1	22.6	22.6	23.1	23.6	14.5	15.1	15.0	15.6	16.0
8H	4H	21.4	22.0	21.9	22.5	22.9	14.4	15.1	14.9	15.5	16.0
	6H	21.9	22.4	22.4	22.9	23.4	14.9	15.5	15.4	16.0	16.4
	8H	22.0	22.5	22.5	23.0	23.5	15.1	15.5	15.6	16.0	16.5
	12H	22.1	22.5	22.6	23.0	23.6	15.1	15.5	15.6	16.0	16.6
12H	4H	21.4	21.9	21.9	22.4	22.9	14.5	15.1	15.0	15.6	16.1
	6H	21.8	22.3	22.4	22.8	23.3	15.1	15.6	15.6	16.0	16.6
	8H	22.0	22.4	22.5	22.9	23.5	15.2	15.6	15.8	16.1	16.7

Maximum UGR = 23.6

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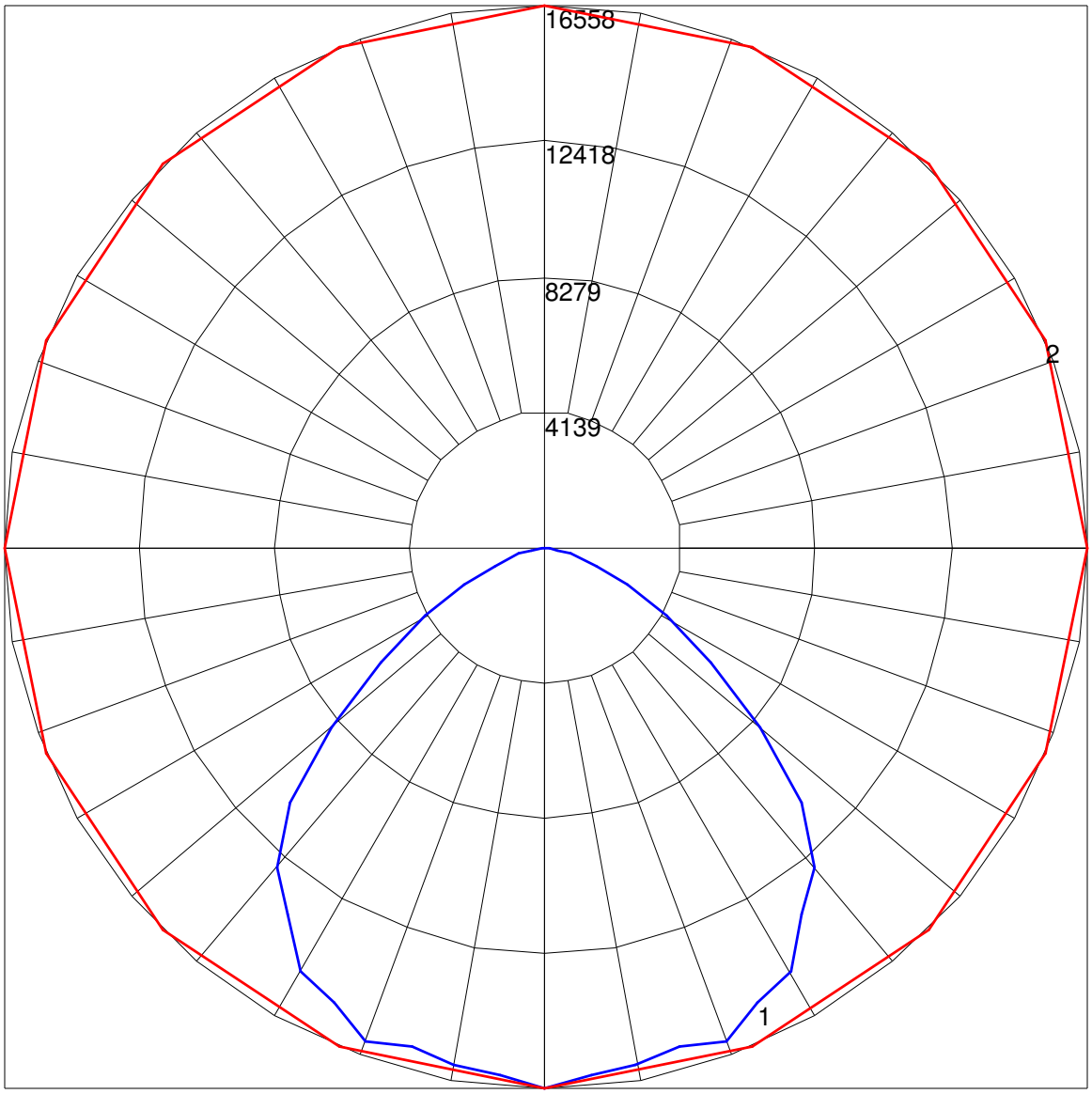
POLAR GRAPH



Maximum Candela = 16557.818 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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