H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : GP4-L300-840-W-CL-DIM-UNV_40C_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] GEN FROM BALLABS TEST NO. 19517.0
[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC
[ISSUEDATE] 18-SEP-2020
[MANUFAC] WILLIAMS INDOOR
[OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO
[LUMINAIRE] 4-192 LED 22"ARRAYS EACH ON ALUM HEATSINK 24X19"HIGHBAY
[MORE] LUMINAIRE w/CLEAR ACRYLIC LENSES OVER LEDS & CENTER DRIVER
[MORE] HOUSING 4 ADVANCE #XI095C275V054DNF1 WITH 18K RESISTORS
[LUMCAT] GP4-L300-850-W-CL-DIM-UNV 40C
[LAMPCAT] D5638D192C2560A8N50
[_SEARCH_SOURCETYPE] LED
[_SEARCH_APPLICATION] Indoor, Industrial, Manufacturing, Warehouse, High Bay
[_SEARCH_MOUNTING] Cable, Pendant, Suspended

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	25910
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	110
Total Luminaire Watts	236
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.30
Spacing Criterion (90-270)	1.36
Spacing Criterion (Diagonal)	1.44
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	1.88 ft
Luminous Width (90-270)	1.58 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	31321	33410	33428
55	29041	32332	33653
65	23889	27710	25574
75	13709	18537	16073
85	3961	8172	8247

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	8924.106	8924.106	8924.106	8924.106	8924.106
5	8924.106	8947.624	8954.860	8903.001	8909.634
10	8843.905	8906.619	8846.920	8757.070	8719.682
15	8676.868	8732.949	8624.405	8609.933	8608.726
20	8425.408	8443.499	8442.896	8515.861	8470.635
25	8108.219	8073.244	8213.145	8044.902	8131.737
30	7731.934	7695.753	7743.994	8018.369	8130.531
35	7290.523	7318.865	7452.132	7834.448	7678.265
40	6733.331	6745.995	7237.457	7101.777	6959.464
45	6112.823	5971.113	6520.465	6487.902	6524.083
50	5425.379	5481.460	5711.814	6056.742	6055.536
55	4597.431	5027.988	5118.441	5400.655	5327.690
60	3700.739	4024.562	4430.998	3985.968	3901.545
65	2786.560	3101.337	3232.192	2901.134	2983.144
70	1816.299	2324.043	2009.266	2136.503	2237.811
75	979.306	1304.937	1324.234	1135.488	1148.152
80	378.697	553.573	572.267	567.443	590.357
85	95.277	200.203	196.585	187.540	198.394
90	4.824	65.126	50.654	36.784	34.372
95	1.809	19.297	51.860	60.905	59.699
100	5.427	8.442	12.663	25.327	21.709
105	7.236	14.473	14.473	12.663	12.663
110	7.236	14.473	15.679	16.885	16.885
115	8.442	14.473	19.900	18.694	19.900
120	9.045	16.885	21.709	21.709	23.518
125	9.045	17.488	21.709	25.930	27.739
130	9.045	18.694	21.709	25.930	27.739
135	12.060	19.900	23.518	26.533	26.533
140	13.266	21.709	24.724	26.533	26.533
145	18.091	24.724	27.739	28.342	29.548
150	21.709	27.739	31.960	33.166	32.563
155	27.136	30.151	34.975	37.387	37.990
160	33.769	34.975	39.799	42.814	43.418
165	39.196	39.799	42.814	44.624	45.830
170	42.814	41.608	43.418	45.227	45.830
175	43.418	42.814	42.814	42.814	43.418
180	43.418	43.418	43.418	43.418	43.418

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	3295.72	N.A.	12.70
0-30	7053.94	N.A.	27.20
0-40	11737.36	N.A.	45.30
0-60	21129.07	N.A.	81.50
0-80	25497.27	N.A.	98.40
0-90	25756.71	N.A.	99.40
10-90	24908.16	N.A.	96.10
20-40	8441.64	N.A.	32.60
20-50	13344.96	N.A.	51.50
40-70	12420.48	N.A.	47.90
60-80	4368.19	N.A.	16.90
70-80	1339.42	N.A.	5.20
80-90	259.44	N.A.	1.00
90-110	52.76	N.A.	0.20
90-120	69.50	N.A.	0.30
90-130	87.89	N.A.	0.30
90-150	121.62	N.A.	0.50
90-180	153.28	N.A.	0.60
110-180	100.52	N.A.	0.40
0-180	25909.99	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	848.55
10-20	2447.17
20-30	3758.22
30-40	4683.42
40-50	4903.32
50-60	4488.39
60-70	3028.78
70-80	1339.42
80-90	259.44
90-100	38.07
100-110	14.69
110-120	16.74
120-130	18.40
130-140	17.22
140-150	16.51
150-160	15.71
160-170	11.82
170-180	4.13

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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	101	101	101	99
1	109	105	101	97	106	102	99	95	98	95	92	94	92	89	90	88	87	84
2	100	92	85	79	97	90	84	78	86	81	76	83	78	75	80	76	73	71
3	91	80	72	66	88	79	71	65	76	69	64	73	68	63	70	66	62	60
4	83	71	63	56	81	70	62	56	67	60	55	65	59	54	63	57	53	51
5	76	64	55	48	74	62	54	48	60	53	47	58	52	47	56	51	46	44
6	70	57	48	42	68	56	48	42	54	47	41	53	46	41	51	45	40	38
7	65	52	43	37	63	51	43	37	49	42	36	48	41	36	46	40	36	34
8	61	47	39	33	59	46	38	33	45	38	32	44	37	32	43	37	32	30
9	57	43	35	29	55	43	35	29	41	34	29	40	34	29	39	33	29	27
10	53	40	32	27	52	39	32	27	38	31	26	37	31	26	36	30	26	24

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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	24.1	25.7	24.5	26.0	26.4	24.4	26.0	24.8	26.4	26.7
	3H	25.5	26.9	25.8	27.2	27.6	25.7	27.2	26.1	27.5	27.9
	4H	25.8	27.1	26.2	27.5	27.9	26.1	27.4	26.5	27.8	28.2
	6H	25.9	27.1	26.3	27.5	27.9	26.3	27.5	26.7	27.9	28.3
	8H	25.9	27.1	26.3	27.5	27.9	26.3	27.5	26.7	27.9	28.3
	12H	25.9	27.0	26.3	27.4	27.9	26.3	27.4	26.7	27.8	28.3
4H	2H	24.7	26.1	25.2	26.4	26.8	25.0	26.3	25.4	26.7	27.1
	3H	26.3	27.4	26.7	27.8	28.2	26.5	27.6	26.9	28.0	28.4
	4H	26.7	27.7	27.2	28.1	28.6	26.8	27.9	27.3	28.3	28.7
	6H	26.9	27.8	27.4	28.2	28.7	27.1	28.0	27.6	28.4	28.9
	8H	26.9	27.7	27.4	28.2	28.7	27.1	28.0	27.6	28.4	28.9
	12H	26.9	27.7	27.4	28.1	28.6	27.2	27.9	27.7	28.4	28.9
8H	4H	26.9	27.7	27.4	28.2	28.7	27.0	27.8	27.5	28.3	28.8
	6H	27.1	27.8	27.6	28.3	28.8	27.3	28.0	27.8	28.5	29.0
	8H	27.2	27.8	27.7	28.3	28.8	27.4	28.0	27.9	28.5	29.0
	12H	27.2	27.7	27.7	28.3	28.8	27.5	28.0	28.0	28.5	29.1
12H	4H	26.9	27.6	27.4	28.1	28.6	27.0	27.7	27.5	28.2	28.7
	6H	27.1	27.8	27.7	28.2	28.8	27.3	27.9	27.9	28.4	29.0
	8H	27.2	27.8	27.8	28.3	28.9	27.4	28.0	28.0	28.5	29.1

Maximum UGR = 29.1

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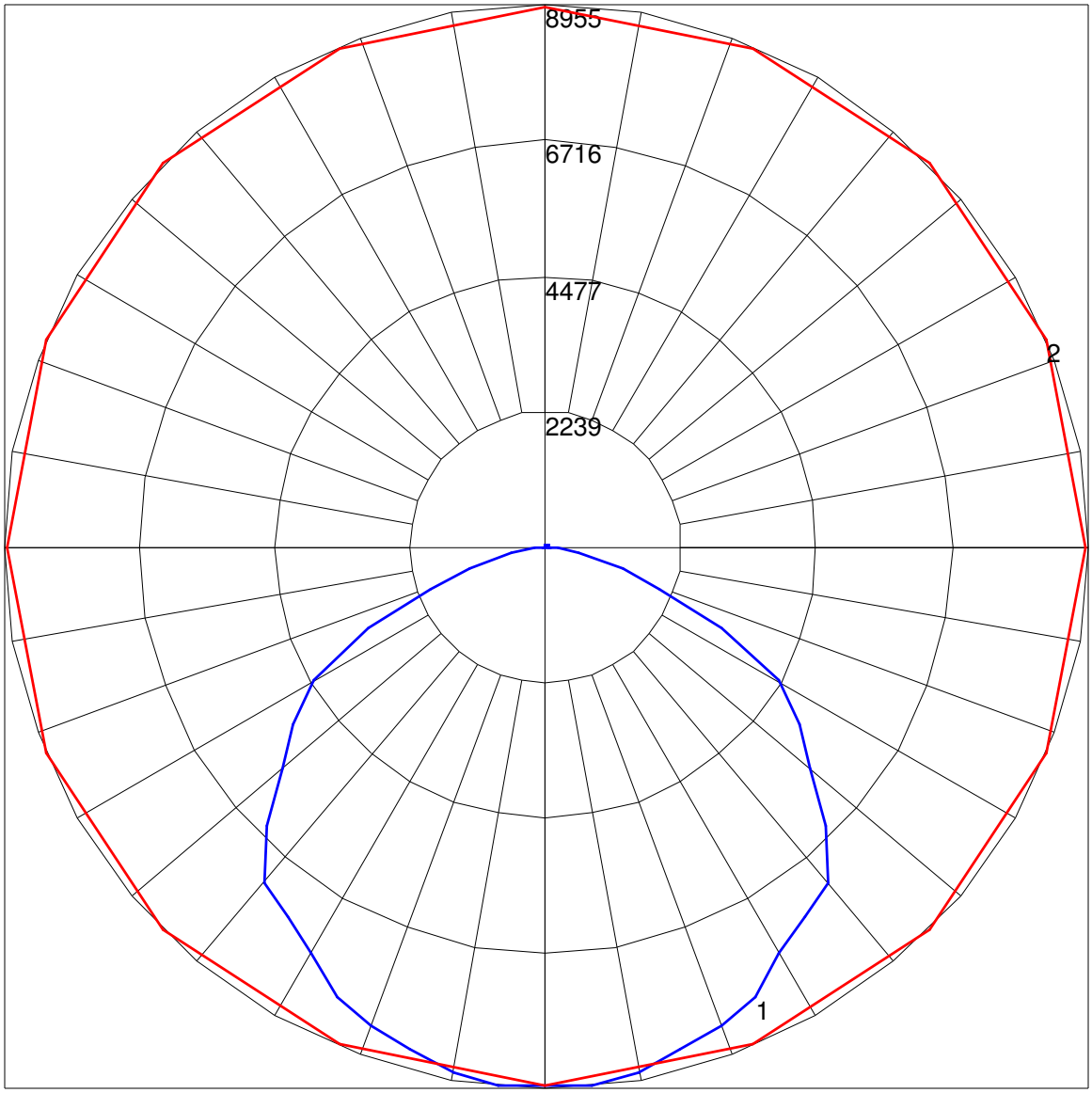
POLAR GRAPH



Maximum Candela = 8954.86 Located At Horizontal Angle = 45, Vertical Angle = 5
1 - Vertical Plane Through Horizontal Angles (45 - 225) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (5) (Through Max. Cd.)

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