H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : GP2-L200-840-W-(L180)-DL-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST]GEN from BALLABS TEST NO. 19524.0
[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC
[ISSUEDATE] 01-12-2021
[MANUFAC] WILLIAMS INDOOR
[OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO
[LUMINAIRE] 2-192 LED 22"ARRAYS EACH ON ALUM HEATSINK 24X19"HIGHBAY
[MORE] LUMINAIRE w/DIFFUSE LENSES & CENTER DRIVER HOUSING
[MORE] 2 ADVANCE #XI095C275V054DNF1
[LUMCAT] GP2-L-L200-840-W-(L180)-DL-DIM-UNV
[LAMPCAT] D5638D192C2560A8N40
[_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	13658
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	109
Total Luminaire Watts	125.4
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.24
Spacing Criterion (90-270)	1.34
Spacing Criterion (Diagonal)	1.42
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	13649	15388	16856
55	12559	15427	17226
65	10985	15192	16940
75	8286	14591	16848
85	4008	17575	24063

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	4328.898	4328.898	4328.898	4328.898	4328.898
5	4325.342	4331.269	4321.786	4305.982	4303.611
10	4269.631	4281.880	4280.299	4269.236	4270.026
15	4162.159	4178.754	4198.905	4204.042	4204.832
20	4003.322	4033.351	4085.507	4114.745	4106.448
25	3799.442	3854.363	3914.026	3995.420	3993.444
30	3560.396	3636.259	3725.950	3850.807	3875.304
35	3295.273	3389.706	3507.056	3673.795	3691.970
40	2987.872	3116.285	3256.947	3469.520	3506.661
45	2663.877	2812.836	3003.282	3232.054	3289.742
50	2331.979	2488.840	2734.603	2961.795	3032.916
55	1988.227	2181.044	2442.216	2656.369	2727.095
60	1640.129	1867.321	2125.728	2312.223	2375.442
65	1281.363	1537.399	1772.098	1926.589	1975.979
70	923.783	1216.564	1403.850	1534.633	1577.701
75	591.885	884.271	1042.318	1166.780	1203.525
80	309.771	550.398	702.913	827.769	865.701
85	96.408	264.728	422.775	533.408	578.846
90	2.371	79.814	192.817	284.484	327.552
95	1.976	37.141	136.315	214.153	245.763
100	7.507	15.410	90.482	155.676	185.310
105	9.878	15.805	54.526	106.682	131.574
110	11.063	21.336	27.658	67.565	87.321
115	12.644	25.683	27.658	41.487	54.526
120	15.410	30.819	34.375	33.980	36.351
125	17.780	35.561	39.117	43.858	46.624
130	18.570	39.117	41.487	46.229	49.390
135	21.336	45.043	45.438	48.599	51.365
140	23.312	45.438	48.994	50.970	49.785
145	27.263	43.858	53.736	53.736	54.131
150	30.819	43.858	61.243	58.477	58.477
155	34.375	41.487	58.872	65.984	66.380
160	37.536	41.092	55.711	63.219	65.984
165	41.092	41.487	52.155	58.477	62.033
170	43.858	42.673	47.019	52.155	55.316
175	46.229	45.438	45.834	48.994	50.970
180	48.204	48.204	48.204	48.204	48.204

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	1594.05	N.A.	11.70
0-30	3399.6	N.A.	24.90
0-40	5599.64	N.A.	41.00
0-60	10070.57	N.A.	73.70
0-80	12829.3	N.A.	93.90
0-90	13272.58	N.A.	97.20
10-90	12861.78	N.A.	94.20
20-40	4005.59	N.A.	29.30
20-50	6324.6	N.A.	46.30
40-70	6170.1	N.A.	45.20
60-80	2758.73	N.A.	20.20
70-80	1059.55	N.A.	7.80
80-90	443.28	N.A.	3.20
90-110	211.04	N.A.	1.50
90-120	245.07	N.A.	1.80
90-130	277.94	N.A.	2.00
90-150	341.80	N.A.	2.50
90-180	385.44	N.A.	2.80
110-180	174.40	N.A.	1.30
0-180	13658.02	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	410.80
10-20	1183.26
20-30	1805.54
30-40	2200.05
40-50	2319.01
50-60	2151.91
60-70	1699.18
70-80	1059.55
80-90	443.28
90-100	143.50
100-110	67.54
110-120	34.03
120-130	32.87
130-140	33.53
140-150	30.33
150-160	24.68
160-170	14.42
170-180	4.54

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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	118	118	118	118	115	115	115	115	110	110	110	104	104	104	99	99	99	97
1	107	102	98	93	104	100	95	92	95	91	88	90	88	85	86	84	82	80
2	97	89	81	75	94	86	80	74	82	77	72	79	74	70	75	71	68	66
3	88	77	69	62	86	76	68	61	72	65	60	69	63	59	66	61	57	55
4	81	68	59	52	78	67	58	52	64	57	51	61	55	50	59	53	49	47
5	74	61	52	45	72	60	51	45	57	50	44	55	48	43	53	47	42	40
6	68	55	46	39	66	54	45	39	52	44	38	50	43	38	48	42	37	35
7	63	50	41	34	61	49	40	34	47	39	34	45	38	33	43	37	33	31
8	59	45	37	31	57	44	36	30	43	35	30	41	35	30	40	34	29	27
9	55	41	33	27	53	41	33	27	39	32	27	38	31	27	37	31	26	25
10	52	38	30	25	50	38	30	25	36	29	24	35	29	24	34	28	24	22

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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	20.6	22.2	21.0	22.6	23.0	22.2	23.8	22.6	24.2	24.6
	3H	22.3	23.7	22.7	24.1	24.5	24.2	25.7	24.7	26.1	26.5
	4H	22.8	24.2	23.3	24.6	25.1	25.1	26.5	25.6	26.9	27.3
	6H	23.2	24.4	23.6	24.9	25.3	25.9	27.2	26.4	27.6	28.1
	8H	23.2	24.5	23.7	24.9	25.4	26.2	27.5	26.7	27.9	28.4
	12H	23.3	24.4	23.8	24.9	25.4	26.6	27.8	27.1	28.2	28.7
4H	2H	21.6	22.9	22.0	23.3	23.8	22.8	24.1	23.2	24.6	25.0
	3H	23.5	24.6	23.9	25.1	25.6	25.1	26.2	25.5	26.7	27.1
	4H	24.2	25.3	24.7	25.7	26.2	26.1	27.1	26.6	27.6	28.1
	6H	24.7	25.6	25.2	26.1	26.7	27.1	28.0	27.6	28.5	29.0
	8H	24.8	25.7	25.3	26.2	26.7	27.5	28.4	28.0	28.9	29.4
	12H	24.9	25.7	25.4	26.2	26.8	27.9	28.7	28.5	29.3	29.8
8H	4H	24.8	25.7	25.3	26.1	26.7	26.4	27.3	26.9	27.8	28.3
	6H	25.5	26.2	26.0	26.7	27.3	27.5	28.3	28.1	28.8	29.3
	8H	25.7	26.4	26.3	26.9	27.5	28.1	28.8	28.7	29.3	29.9
	12H	25.9	26.5	26.4	27.0	27.6	28.7	29.3	29.3	29.9	30.5
12H	4H	24.9	25.7	25.4	26.2	26.7	26.4	27.2	26.9	27.7	28.3
	6H	25.7	26.3	26.2	26.8	27.5	27.6	28.3	28.2	28.8	29.4
	8H	26.0	26.6	26.6	27.1	27.7	28.2	28.8	28.8	29.4	30.0

Maximum UGR = 30.5

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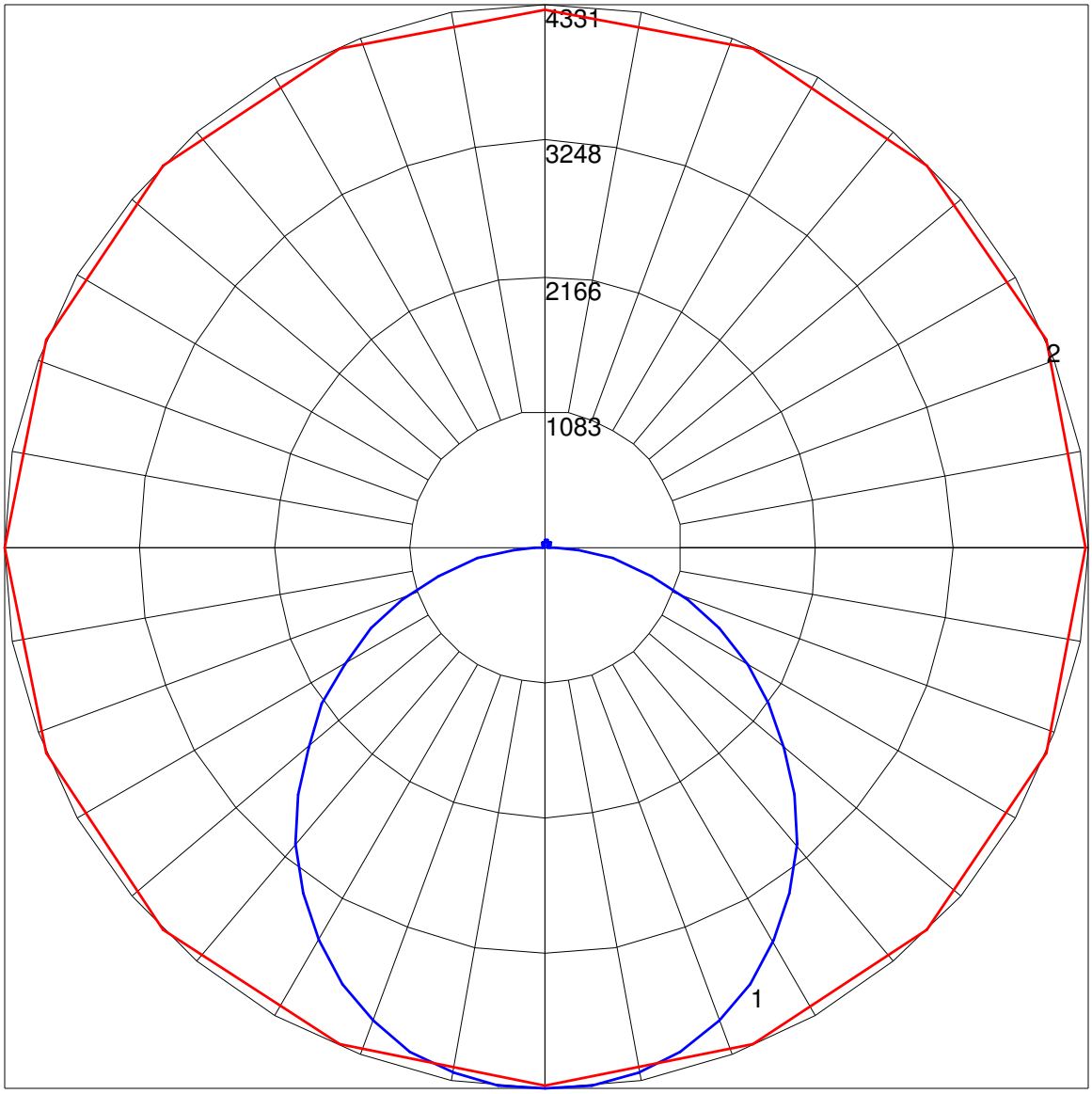
POLAR GRAPH



Maximum Candela = 4331.269 Located At Horizontal Angle = 22.5, Vertical Angle = 5
1 - Vertical Plane Through Horizontal Angles (22.5 - 202.5) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (5) (Through Max. Cd.)

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