H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : GP2-L200-840-W-UP-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] GEN FROM BALLABS TEST NO. 19557.0
[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC
[ISSUEDATE] 03-05-2020
[MANUFAC] WILLIAMS INDOOR
[OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO
[LUMINAIRE] 2-192 LED 22"ARRAYS EACH ON ALUM HEATSINK 24x15"HIGHBAY
[MORE] LUMINIARE w/SPEC NARROW DL REFL & WHITE UPLIGHT REFLS, CTR
[MORE] DRIVER HOUSING 2 ADVANCE #XI095C275V054DNF
[LUMCAT] GP2-L200-840-W-UP-DIM-UNV
[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	18589
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	118
Total Luminaire Watts	157
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.30
Spacing Criterion (90-270)	0.94
Spacing Criterion (Diagonal)	1.10
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	1.88 ft
Luminous Width (90-270)	1.19 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	54195	23744	1093
55	52077	940	577
65	46563	478	429
75	34640	603	837
85	11971	1051	884

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	11210.004	11210.004	11210.004	11210.004	11210.004
5	11198.770	11209.140	11194.449	11163.769	11165.066
10	11093.769	11124.880	11069.139	10990.929	10910.126
15	10887.225	10928.706	10689.754	10358.765	10169.504
20	10612.408	10566.173	10091.294	8963.510	8766.039
25	10242.962	10083.516	8797.583	7754.922	7506.896
30	9795.305	9479.006	7652.514	6408.062	6120.283
35	9257.771	8638.569	6443.063	5196.018	4831.325
40	8664.928	7451.155	5110.030	2582.237	1773.776
45	7951.096	6223.123	3483.601	270.928	160.310
50	7126.647	5047.375	909.573	102.408	95.926
55	6197.629	3803.356	111.914	77.778	68.704
60	5140.277	2460.385	74.754	41.050	37.161
65	4082.925	687.905	41.914	37.593	37.593
70	2953.845	82.963	32.408	38.889	41.050
75	1860.196	44.939	32.408	43.642	44.939
80	888.400	30.679	32.408	50.124	53.148
85	216.483	19.445	19.012	24.198	15.988
90	8.642	0.000	0.000	0.432	0.000
95	10.370	5.185	4.753	5.185	3.457
100	36.297	19.012	22.901	18.148	17.716
105	78.642	29.815	39.321	41.050	38.889
110	126.174	47.531	47.963	57.469	59.198
115	175.001	64.383	55.741	63.087	65.247
120	221.668	82.099	69.568	70.000	70.865
125	261.853	111.050	84.692	81.235	79.075
130	294.261	142.593	95.926	95.926	93.334
135	321.915	191.421	111.482	109.322	109.322
140	344.817	247.162	138.272	120.988	119.260
145	364.694	294.261	181.915	144.322	134.384
150	383.274	338.335	225.557	190.125	162.470
155	398.397	372.471	285.619	235.495	209.137
160	411.793	406.607	349.138	313.273	270.928
165	438.151	429.941	409.200	370.311	373.336
170	470.126	442.040	445.064	422.595	426.052
175	496.484	472.719	463.213	462.348	468.830
180	493.460	493.460	493.460	493.460	493.460

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	4034.46	N.A.	21.70
0-30	8116.29	N.A.	43.70
0-40	12270.66	N.A.	66.00
0-60	16683.59	N.A.	89.70
0-80	17741.86	N.A.	95.40
0-90	17806.25	N.A.	95.80
10-90	16743.12	N.A.	90.10
20-40	8236.2	N.A.	44.30
20-50	11025.81	N.A.	59.30
40-70	5182.23	N.A.	27.90
60-80	1058.27	N.A.	5.70
70-80	288.96	N.A.	1.60
80-90	64.39	N.A.	0.30
90-110	53.46	N.A.	0.30
90-120	129.01	N.A.	0.70
90-130	229.17	N.A.	1.20
90-150	487.74	N.A.	2.60
90-180	782.90	N.A.	4.20
110-180	729.44	N.A.	3.90
0-180	18589.16	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	1063.14
10-20	2971.33
20-30	4081.83
30-40	4154.37
40-50	2789.62
50-60	1623.31
60-70	769.30
70-80	288.96
80-90	64.39
90-100	9.25
100-110	44.22
110-120	75.55
120-130	100.15
130-140	121.65
140-150	136.93
150-160	138.75
160-170	112.36
170-180	44.06

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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	109	109	109	103	103	103	98	98	98	96
1	111	107	104	101	108	104	102	99	100	97	95	95	93	92	91	89	88	86
2	103	97	92	87	100	95	90	86	91	87	83	87	84	81	83	81	78	76
3	96	88	81	76	93	86	80	75	82	78	73	79	75	72	76	73	70	68
4	89	80	73	67	87	78	72	67	75	70	65	73	68	64	70	66	63	61
5	83	73	65	60	81	72	65	60	69	63	59	67	62	58	65	60	57	55
6	78	67	59	54	76	66	59	54	64	57	53	62	56	52	60	55	51	50
7	73	62	54	49	71	61	54	49	59	53	48	57	52	47	55	51	47	45
8	68	57	50	45	67	56	49	44	54	48	44	53	47	43	52	47	43	41
9	64	53	46	41	63	52	45	41	51	45	40	49	44	40	48	43	39	38
10	61	49	42	38	59	49	42	37	47	41	37	46	41	37	45	40	37	35

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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	25.0	26.2	25.4	26.6	27.0	10.2	10.2	10.2	10.2	10.2
	3H	26.2	27.2	26.6	27.7	28.2	10.2	10.2	10.2	10.2	10.2
	4H	26.7	27.7	27.2	28.2	28.7	10.2	10.2	10.2	10.2	10.2
	6H	27.2	28.1	27.7	28.5	29.1	10.2	10.2	10.2	10.2	10.2
	8H	27.3	28.1	27.8	28.6	29.1	10.2	10.2	10.2	10.2	10.2
	12H	27.3	28.1	27.8	28.6	29.1	10.2	10.2	10.2	10.2	10.2
4H	2H	24.7	25.7	25.2	26.2	26.7	10.2	10.2	10.2	10.2	10.2
	3H	25.9	26.7	26.4	27.2	27.8	10.2	10.2	10.2	10.2	10.2
	4H	26.5	27.2	27.0	27.7	28.3	10.2	10.2	10.2	10.2	10.2
	6H	26.9	27.6	27.5	28.1	28.7	10.2	10.2	10.2	10.2	10.2
	8H	27.1	27.7	27.6	28.2	28.8	10.2	10.2	10.2	10.2	10.2
	12H	27.1	27.6	27.7	28.2	28.8	10.2	10.2	10.2	10.2	10.2
8H	4H	26.3	26.9	26.9	27.5	28.1	10.2	10.2	10.2	10.2	10.2
	6H	26.8	27.3	27.4	27.8	28.4	10.2	10.2	10.2	10.2	10.2
	8H	26.9	27.3	27.5	27.9	28.5	10.2	10.2	10.2	10.2	10.2
	12H	27.0	27.4	27.6	27.9	28.6	10.2	10.2	10.2	10.2	10.2
12H	4H	26.3	26.8	26.9	27.4	28.0	10.2	10.2	10.2	10.2	10.2
	6H	26.7	27.2	27.3	27.7	28.4	10.2	10.2	10.2	10.2	10.2
	8H	26.9	27.2	27.5	27.8	28.5	10.2	10.2	10.2	10.2	10.2

Maximum UGR = 29.1

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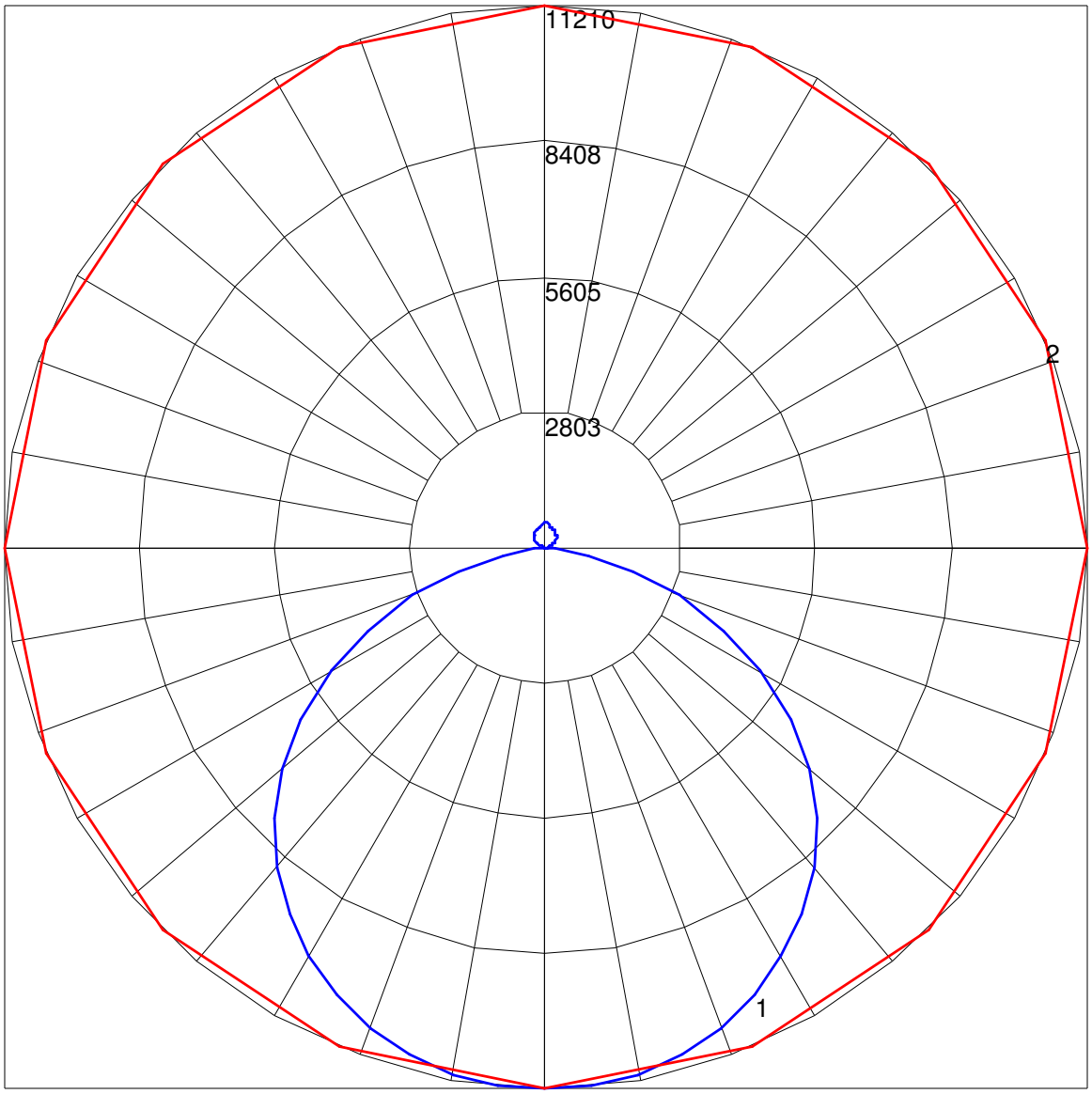
POLAR GRAPH



Maximum Candela = 11210.004 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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