H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : GP6-L550-840-W-DL-DIM-UNV_40C_.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] 18-SEP-2020
[MANUFAC] WILLIAMS INDOOR
[OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO
[LUMINAIRE] 6-192 LED 22"ARRAYS EACH ON ALUM HEATSINK 24X27"HIGHBAY
[MORE] LUMINAIRE w/DIFFUSE LENSES & CENTER DRIVER HOUSING
[MORE] 6 ADVANCE #XI095C275V054DNF1 - 18K RESISTORS
[LUMCAT] GP6-L500-840-W-DL-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	41584
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	95
Total Luminaire Watts	438
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)	2.12 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	31031	34985	38321
55	28552	35072	39163
65	24974	34539	38512
75	18837	33172	38302
85	9111	39956	54706

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	13180.035	13180.035	13180.035	13180.035	13180.035
5	13169.208	13187.253	13158.381	13110.261	13103.043
10	12999.585	13036.878	13032.066	12998.382	13000.788
15	12672.370	12722.896	12784.249	12799.888	12802.294
20	12188.765	12280.193	12438.989	12528.010	12502.748
25	11568.019	11735.235	11916.888	12164.705	12158.690
30	10840.206	11071.181	11344.261	11724.408	11798.994
35	10032.995	10320.511	10677.801	11185.466	11240.804
40	9097.063	9488.037	9916.304	10563.516	10676.598
45	8110.606	8564.135	9143.980	9840.515	10016.153
50	7100.088	7577.678	8325.942	9017.665	9234.205
55	6053.481	6640.543	7435.724	8087.749	8303.085
60	4993.640	5685.364	6472.124	7039.938	7232.418
65	3901.319	4680.861	5395.441	5865.813	6016.188
70	2812.607	3704.028	4274.248	4672.440	4803.567
75	1802.089	2692.307	3173.506	3552.450	3664.329
80	943.150	1675.775	2140.132	2520.279	2635.766
85	293.531	806.008	1287.207	1624.046	1762.391
90	7.218	243.005	587.063	866.158	997.284
95	6.015	113.082	415.034	652.024	748.264
100	22.857	46.917	275.486	473.981	564.206
105	30.075	48.120	166.014	324.809	400.598
110	33.684	64.962	84.210	205.712	265.862
115	38.496	78.195	84.210	126.315	166.014
120	46.917	93.834	104.661	103.458	110.676
125	54.135	108.270	119.097	133.533	141.954
130	56.541	119.097	126.315	140.751	150.375
135	64.962	137.142	138.345	147.969	156.390
140	70.977	138.345	149.172	155.187	151.578
145	83.007	133.533	163.608	163.608	164.811
150	93.834	133.533	186.465	178.044	178.044
155	104.661	126.315	179.247	200.900	202.103
160	114.285	125.112	169.623	192.480	200.900
165	125.112	126.315	158.796	178.044	188.871
170	133.533	129.924	143.157	158.796	168.420
175	140.751	138.345	139.548	149.172	155.187
180	146.766	146.766	146.766	146.766	146.766

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	4853.36	N.A.	11.70
0-30	10350.62	N.A.	24.90
0-40	17049.03	N.A.	41.00
0-60	30661.47	N.A.	73.70
0-80	39060.88	N.A.	93.90
0-90	40410.52	N.A.	97.20
10-90	39159.78	N.A.	94.20
20-40	12195.67	N.A.	29.30
20-50	19256.28	N.A.	46.30
40-70	18785.89	N.A.	45.20
60-80	8399.41	N.A.	20.20
70-80	3225.96	N.A.	7.80
80-90	1349.64	N.A.	3.20
90-110	642.55	N.A.	1.50
90-120	746.14	N.A.	1.80
90-130	846.23	N.A.	2.00
90-150	1040.67	N.A.	2.50
90-180	1173.54	N.A.	2.80
110-180	531.00	N.A.	1.30
0-180	41584.06	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	1250.74
10-20	3602.61
20-30	5497.26
30-40	6698.41
40-50	7060.61
50-60	6551.84
60-70	5173.44
70-80	3225.97
80-90	1349.64
90-100	436.92
100-110	205.63
110-120	103.60
120-130	100.09
130-140	102.08
140-150	92.36
150-160	75.14
160-170	43.90
170-180	13.83

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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	23.4	25.0	23.8	25.4	25.8	25.0	26.6	25.4	27.0	27.4
	3H	25.0	26.5	25.5	26.9	27.3	27.0	28.5	27.4	28.9	29.3
	4H	25.6	27.0	26.1	27.4	27.8	27.9	29.3	28.3	29.7	30.1
	6H	26.0	27.2	26.4	27.6	28.1	28.7	30.0	29.1	30.4	30.8
	8H	26.0	27.2	26.5	27.7	28.2	29.0	30.3	29.5	30.7	31.2
	12H	26.1	27.2	26.5	27.7	28.2	29.4	30.6	29.9	31.0	31.5
4H	2H	24.3	25.7	24.8	26.1	26.6	25.6	26.9	26.0	27.3	27.8
	3H	26.3	27.4	26.7	27.9	28.4	27.9	29.0	28.3	29.5	29.9
	4H	27.0	28.1	27.5	28.5	29.0	28.9	29.9	29.4	30.4	30.9
	6H	27.5	28.4	28.0	28.9	29.4	29.8	30.8	30.3	31.3	31.8
	8H	27.6	28.5	28.1	29.0	29.5	30.3	31.1	30.8	31.6	32.2
	12H	27.7	28.5	28.2	29.0	29.5	30.7	31.5	31.3	32.0	32.6
8H	4H	27.6	28.4	28.1	28.9	29.5	29.2	30.0	29.7	30.5	31.1
	6H	28.3	29.0	28.8	29.5	30.1	30.3	31.0	30.9	31.6	32.1
	8H	28.5	29.2	29.1	29.7	30.3	30.9	31.5	31.5	32.1	32.7
	12H	28.7	29.2	29.2	29.8	30.4	31.5	32.1	32.1	32.6	33.3
12H	4H	27.7	28.5	28.2	29.0	29.5	29.2	30.0	29.7	30.5	31.1
	6H	28.5	29.1	29.0	29.6	30.2	30.4	31.0	30.9	31.6	32.2
	8H	28.8	29.4	29.3	29.9	30.5	31.0	31.6	31.6	32.2	32.8

Maximum UGR = 33.3

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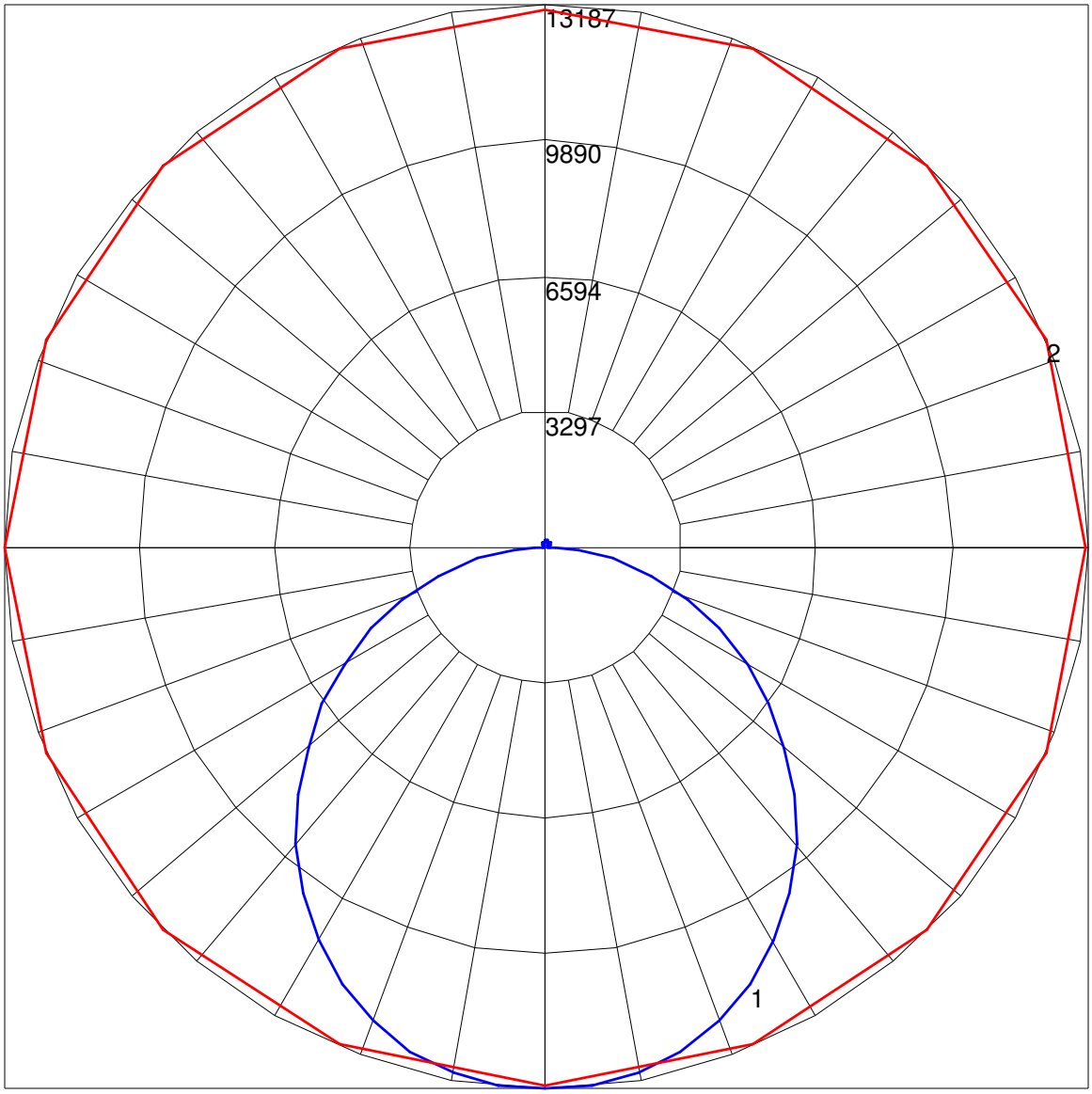
POLAR GRAPH



Maximum Candela = 13187.253 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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