H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : GP6-L600-840-W-DRV-UNV_60C-140F.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] GEN FROM BALLABS TEST NO. 19520.0
[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC
[ISSUEDATE] 09 AUG 2021
[MANUFAC] WILLIAMS INDOOR
[OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO
[LUMINAIRE] 6-22" LED ARRAYS 24x27" HIGHBAY
[MORE] LUMINAIRE WITH NO DIFFUSERS/OPEN BOTTOM
[LUMCAT] GP6-L600-840-W-DRV-UNV 60C-140F
[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	56070
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	117
Total Luminaire Watts	479
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.30
Spacing Criterion (90-270)	1.34
Spacing Criterion (Diagonal)	1.44
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	1.88 ft
Luminous Width (90-270)	2.26 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	47066	48560	49067
55	46043	47867	48898
65	43227	45158	43382
75	34153	32685	34072
85	11389	12469	12887

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	18435.039	18435.039	18435.039	18435.039	18435.039
5	18344.252	18420.664	18444.117	18409.316	18393.428
10	18175.539	18258.761	18305.667	18284.484	18258.004
15	17871.403	17972.782	18037.089	18043.142	17999.261
20	17403.094	17522.630	17659.567	17652.002	17613.417
25	16840.972	16937.811	17122.411	17143.595	17090.636
30	16132.834	16265.988	16424.109	16559.532	16469.502
35	15287.003	15465.550	15594.921	15788.600	15702.353
40	14275.485	14531.202	14630.311	14807.345	14774.056
45	13114.169	13421.332	13530.276	13602.905	13671.752
50	11823.482	12152.584	12228.240	12328.862	12435.537
55	10406.450	10712.855	10818.773	10926.205	11051.793
60	8881.229	9087.013	9316.250	9372.235	9519.008
65	7198.645	7278.084	7520.182	7296.998	7224.368
70	5376.098	5350.375	5297.416	5350.375	5498.661
75	3483.191	3422.667	3333.393	3411.318	3474.869
80	1682.584	1626.599	1579.692	1712.846	1693.932
85	391.140	509.163	428.212	510.676	442.586
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	6836.18	N.A.	12.20
0-30	14698.63	N.A.	26.20
0-40	24447.17	N.A.	43.60
0-60	44479.13	N.A.	79.30
0-80	55366.85	N.A.	98.70
0-90	56070.03	N.A.	100.00
10-90	54317.5	N.A.	96.90
20-40	17610.99	N.A.	31.40
20-50	28008.22	N.A.	50.00
40-70	27272.37	N.A.	48.60
60-80	10887.72	N.A.	19.40
70-80	3647.3	N.A.	6.50
80-90	703.19	N.A.	1.30
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	56070.03	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	1752.54
10-20	5083.64
20-30	7862.45
30-40	9748.54
40-50	10397.23
50-60	9634.73
60-70	7240.41
70-80	3647.3
80-90	703.19
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	109	104	100	96	106	102	98	95	98	94	92	94	91	89	90	88	86	84
2	99	91	84	78	96	89	82	77	85	80	75	82	77	74	79	75	72	70
3	90	79	71	65	88	78	70	64	75	68	63	72	66	62	69	65	61	59
4	82	70	61	54	80	69	61	54	66	59	53	64	58	53	62	56	52	50
5	76	62	53	47	73	61	53	46	59	52	46	57	51	45	55	50	45	43
6	70	56	47	41	68	55	47	40	53	46	40	52	45	40	50	44	39	37
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33
8	60	46	38	32	58	46	37	32	44	37	31	43	36	31	42	36	31	29
9	56	42	34	28	54	42	34	28	41	33	28	40	33	28	38	32	28	26
10	52	39	31	26	51	39	31	26	38	30	26	37	30	25	36	30	25	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	25.7	27.4	26.1	27.7	28.0	26.0	27.6	26.3	27.9	28.2
	3H	27.4	28.9	27.8	29.3	29.6	27.6	29.1	28.0	29.4	29.8
	4H	28.0	29.4	28.4	29.7	30.1	28.1	29.5	28.5	29.9	30.3
	6H	28.3	29.6	28.7	30.0	30.4	28.4	29.7	28.8	30.1	30.5
	8H	28.4	29.6	28.8	30.0	30.4	28.5	29.7	28.9	30.1	30.5
	12H	28.4	29.6	28.8	30.0	30.4	28.5	29.7	29.0	30.1	30.5
4H	2H	26.4	27.8	26.8	28.2	28.5	26.6	28.0	27.0	28.3	28.7
	3H	28.3	29.5	28.7	29.9	30.3	28.4	29.6	28.8	30.0	30.4
	4H	28.9	30.0	29.4	30.4	30.9	29.0	30.1	29.5	30.5	30.9
	6H	29.3	30.3	29.8	30.7	31.2	29.4	30.4	29.9	30.8	31.3
	8H	29.4	30.3	29.9	30.7	31.2	29.5	30.4	30.0	30.8	31.3
	12H	29.5	30.2	30.0	30.7	31.2	29.6	30.3	30.1	30.8	31.3
8H	4H	29.2	30.0	29.6	30.5	30.9	29.3	30.1	29.7	30.6	31.0
	6H	29.6	30.4	30.1	30.8	31.3	29.7	30.4	30.2	30.9	31.4
	8H	29.8	30.4	30.3	30.9	31.4	29.9	30.5	30.4	31.0	31.5
	12H	29.8	30.4	30.3	30.9	31.4	29.9	30.5	30.4	31.0	31.6
12H	4H	29.2	30.0	29.7	30.4	30.9	29.3	30.0	29.8	30.5	31.0
	6H	29.7	30.3	30.2	30.8	31.3	29.8	30.4	30.3	30.9	31.4
	8H	29.8	30.4	30.3	30.9	31.4	29.9	30.5	30.4	31.0	31.5

Maximum UGR = 31.6

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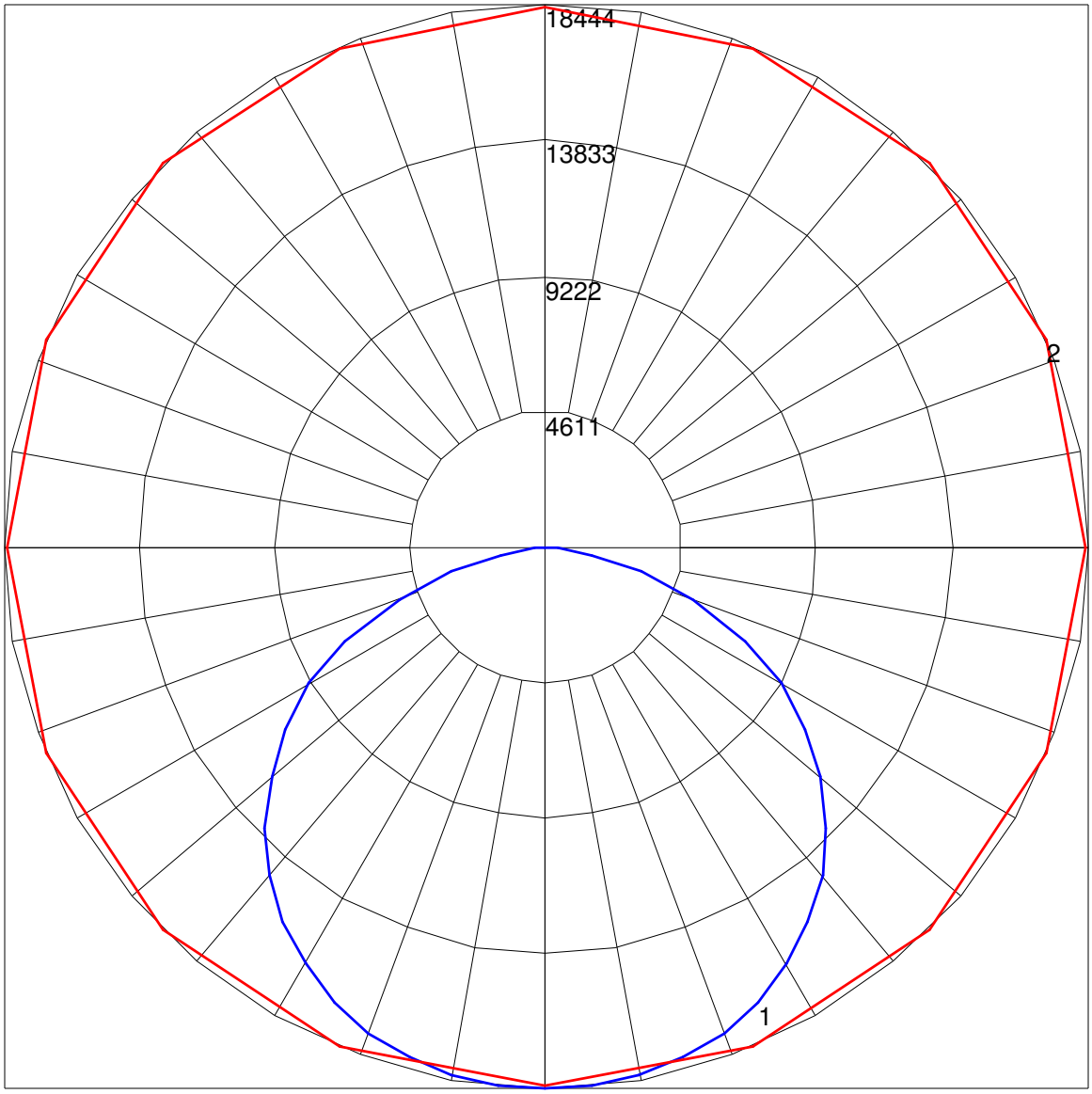
POLAR GRAPH



Maximum Candela = 18444.117 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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