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

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] GEN from BALLABS TEST NO. 19478.0
[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC
[ISSUEDATE] 06-NOV-2019
[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/ NO DIFFUSER/OPEN BOTTOM & CENTER DRIVER HOUSING
[LUMCAT] GP4-L300-840-W-DIM-UNV
[_SEARCH_SOURCETYPE] LED
[_SEARCH_APPLICATION] Indoor, Industrial, Manufacturing, Warehouse, High Bay
[_SEARCH_MOUNTING] Cable, Pendant, Suspended
[_SEARCH_CERTIFICATION] DLC

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	29015
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	123
Total Luminaire Watts	236
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.28
Spacing Criterion (90-270)	1.30
Spacing Criterion (Diagonal)	1.40
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	37499	38197	33751
55	35208	31610	33113
65	30205	29255	22983
75	22397	16443	11313
85	7787	2841	2473

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	10765.282	10765.282	10765.282	10765.282	10765.282
5	10731.107	10782.370	10756.422	10714.019	10714.019
10	10595.038	10671.616	10663.389	10612.125	10620.353
15	10424.793	10450.108	10441.881	10424.793	10450.108
20	10110.252	10093.164	10152.655	10143.794	10177.970
25	9718.499	9701.412	9786.850	9786.850	9803.305
30	9224.853	9241.941	9352.695	9360.922	9360.922
35	8688.804	8671.716	8833.734	8876.137	8893.224
40	8042.001	8042.001	8160.983	8288.824	8237.561
45	7318.620	7310.392	7454.689	6986.991	6587.011
50	6493.345	6476.257	6459.169	5871.857	5931.348
55	5573.771	5599.719	5004.179	5123.160	5242.142
60	4535.848	4646.602	4237.762	4374.464	4451.042
65	3523.241	3642.222	3412.487	3097.946	2680.878
70	2535.949	2416.967	2144.829	1889.146	1889.146
75	1599.920	1540.429	1174.625	884.766	808.187
80	782.872	570.225	357.577	204.420	238.596
85	187.332	110.754	68.351	59.491	59.491
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	3967.77	N.A.	13.70
0-30	8467.58	N.A.	29.20
0-40	13961.86	N.A.	48.10
0-60	24271.12	N.A.	83.60
0-80	28854.32	N.A.	99.40
0-90	29015.3	N.A.	100.00
10-90	27993.25	N.A.	96.50
20-40	9994.1	N.A.	34.40
20-50	15547.29	N.A.	53.60
40-70	13581.18	N.A.	46.80
60-80	4583.21	N.A.	15.80
70-80	1311.29	N.A.	4.50
80-90	160.98	N.A.	0.60
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	29015.3	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	1022.06
10-20	2945.71
20-30	4499.81
30-40	5494.28
40-50	5553.19
50-60	4756.06
60-70	3271.92
70-80	1311.29
80-90	160.98
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	75	75	75	75	74	74	74	74	70	70	70	67	67	67	65	65	65	63
1	70	67	64	62	68	65	63	61	63	61	59	60	59	57	58	57	56	54
2	64	59	55	51	62	57	54	51	55	52	49	53	51	48	51	49	47	46
3	58	52	47	43	57	51	46	42	49	45	42	47	44	41	46	43	40	39
4	53	46	41	36	52	45	40	36	44	39	36	42	38	35	41	37	35	33
5	49	41	36	32	48	40	35	31	39	34	31	38	34	31	37	33	30	29
6	45	37	32	28	44	36	31	27	35	31	27	34	30	27	33	30	27	25
7	42	34	28	24	41	33	28	24	32	27	24	31	27	24	30	27	24	22
8	39	31	25	22	38	30	25	22	29	25	22	29	24	21	28	24	21	20
9	37	28	23	20	36	28	23	19	27	23	19	26	22	19	26	22	19	18
10	34	26	21	18	33	26	21	18	25	21	18	24	20	18	24	20	17	16

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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	26.4	27.9	26.7	28.3	28.6	25.9	27.5	26.2	27.8	28.1
	3H	27.8	29.3	28.2	29.6	29.9	26.9	28.4	27.3	28.7	29.0
	4H	28.3	29.6	28.7	30.0	30.4	27.1	28.4	27.5	28.8	29.2
	6H	28.5	29.8	28.9	30.1	30.5	27.1	28.4	27.5	28.7	29.1
	8H	28.6	29.8	29.0	30.1	30.5	27.1	28.3	27.5	28.7	29.1
	12H	28.6	29.7	29.0	30.1	30.5	27.1	28.2	27.5	28.6	29.0
4H	2H	26.9	28.2	27.3	28.5	28.9	26.5	27.8	26.9	28.2	28.5
	3H	28.5	29.6	28.9	30.0	30.4	27.7	28.8	28.1	29.2	29.6
	4H	29.0	30.0	29.5	30.4	30.9	27.9	28.9	28.3	29.3	29.7
	6H	29.3	30.2	29.8	30.7	31.1	27.9	28.8	28.4	29.2	29.7
	8H	29.4	30.2	29.9	30.7	31.1	27.9	28.7	28.3	29.1	29.6
	12H	29.4	30.1	29.9	30.6	31.1	27.9	28.6	28.3	29.1	29.5
8H	4H	29.1	29.9	29.6	30.4	30.8	28.0	28.8	28.5	29.3	29.7
	6H	29.4	30.1	29.9	30.6	31.1	28.1	28.7	28.6	29.2	29.7
	8H	29.5	30.1	30.0	30.6	31.1	28.0	28.6	28.6	29.1	29.6
	12H	29.6	30.1	30.1	30.6	31.1	28.0	28.6	28.5	29.0	29.6
12H	4H	29.1	29.8	29.6	30.3	30.8	28.0	28.7	28.5	29.2	29.7
	6H	29.4	30.0	29.9	30.5	31.0	28.1	28.7	28.6	29.1	29.7
	8H	29.5	30.0	30.0	30.5	31.1	28.1	28.6	28.6	29.1	29.6

Maximum UGR = 31.1

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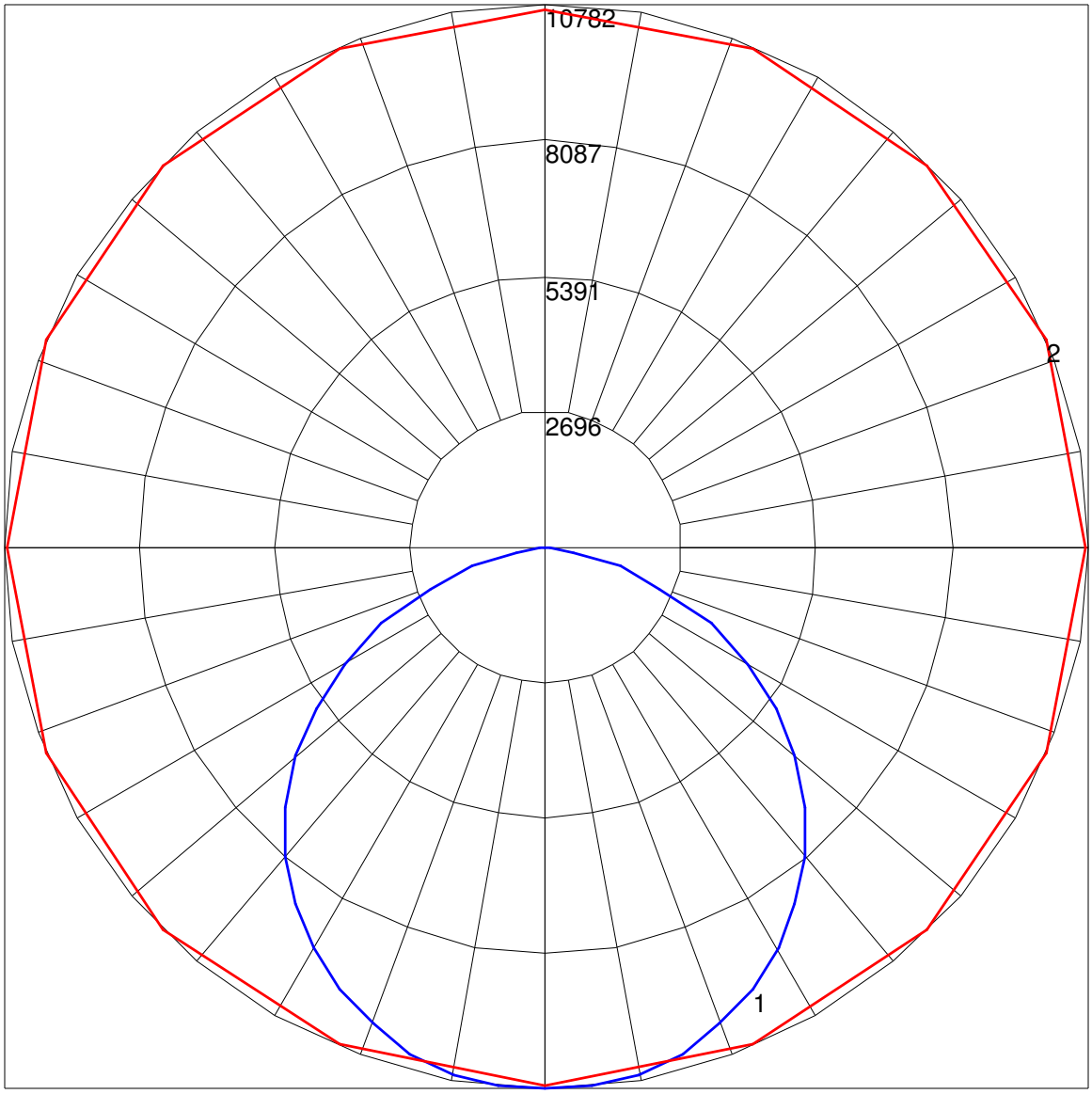
POLAR GRAPH



Maximum Candela = 10782.37 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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