IES INDOOR REPORT
PHOTOMETRIC FILENAME : GP4-L350-840-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-L350-840-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	34147
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	123
Total Luminaire Watts	278
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	44132	44953	39720
55	41435	37201	38970
65	35547	34430	27048
75	26358	19351	13315
85	9165	3344	2910

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	12669.381	12669.381	12669.381	12669.381	12669.381
5	12629.161	12689.491	12658.954	12609.051	12609.051
10	12469.025	12559.148	12549.465	12489.135	12498.817
15	12268.668	12298.461	12288.778	12268.668	12298.461
20	11898.493	11878.383	11948.396	11937.968	11978.189
25	11437.449	11417.339	11517.890	11517.890	11537.255
30	10856.490	10876.600	11006.944	11016.626	11016.626
35	10225.628	10205.518	10396.192	10446.095	10466.205
40	9464.422	9464.422	9604.449	9754.902	9694.572
45	8613.094	8603.411	8773.230	8222.808	7752.082
50	7641.849	7621.739	7601.629	6910.436	6980.449
55	6559.626	6590.164	5889.288	6029.315	6169.341
60	5338.122	5468.465	4987.312	5148.193	5238.316
65	4146.411	4286.437	4016.067	3645.892	3155.056
70	2984.492	2844.466	2524.194	2223.286	2223.286
75	1882.904	1812.891	1382.385	1041.258	951.135
80	921.342	671.082	420.823	240.577	280.797
85	220.467	130.343	80.441	70.013	70.013
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	4669.56	N.A.	13.70
0-30	9965.28	N.A.	29.20
0-40	16431.35	N.A.	48.10
0-60	28564.05	N.A.	83.60
0-80	33957.91	N.A.	99.40
0-90	34147.36	N.A.	100.00
10-90	32944.53	N.A.	96.50
20-40	11761.79	N.A.	34.40
20-50	18297.2	N.A.	53.60
40-70	15983.33	N.A.	46.80
60-80	5393.86	N.A.	15.80
70-80	1543.22	N.A.	4.50
80-90	189.45	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	34147.36	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	1202.83
10-20	3466.73
20-30	5295.72
30-40	6466.08
40-50	6535.41
50-60	5597.28
60-70	3850.64
70-80	1543.22
80-90	189.45
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	89	89	89	89	87	87	87	87	83	83	83	79	79	79	76	76	76	75
1	82	79	76	73	80	77	74	72	74	72	70	71	69	67	68	67	65	64
2	75	69	64	60	73	68	63	60	65	61	58	63	60	57	60	58	56	54
3	68	61	55	50	67	60	54	50	58	53	49	55	52	48	54	50	47	46
4	63	54	48	43	61	53	47	43	51	46	42	50	45	41	48	44	41	39
5	58	48	42	37	56	48	41	37	46	41	36	45	40	36	43	39	36	34
6	53	44	37	32	52	43	37	32	42	36	32	40	35	32	39	35	31	30
7	49	40	33	29	48	39	33	29	38	32	28	37	32	28	36	31	28	26
8	46	36	30	26	45	36	30	25	35	29	25	34	29	25	33	28	25	24
9	43	33	27	23	42	33	27	23	32	27	23	31	26	23	30	26	23	21
10	40	31	25	21	39	30	25	21	29	24	21	29	24	21	28	24	21	19

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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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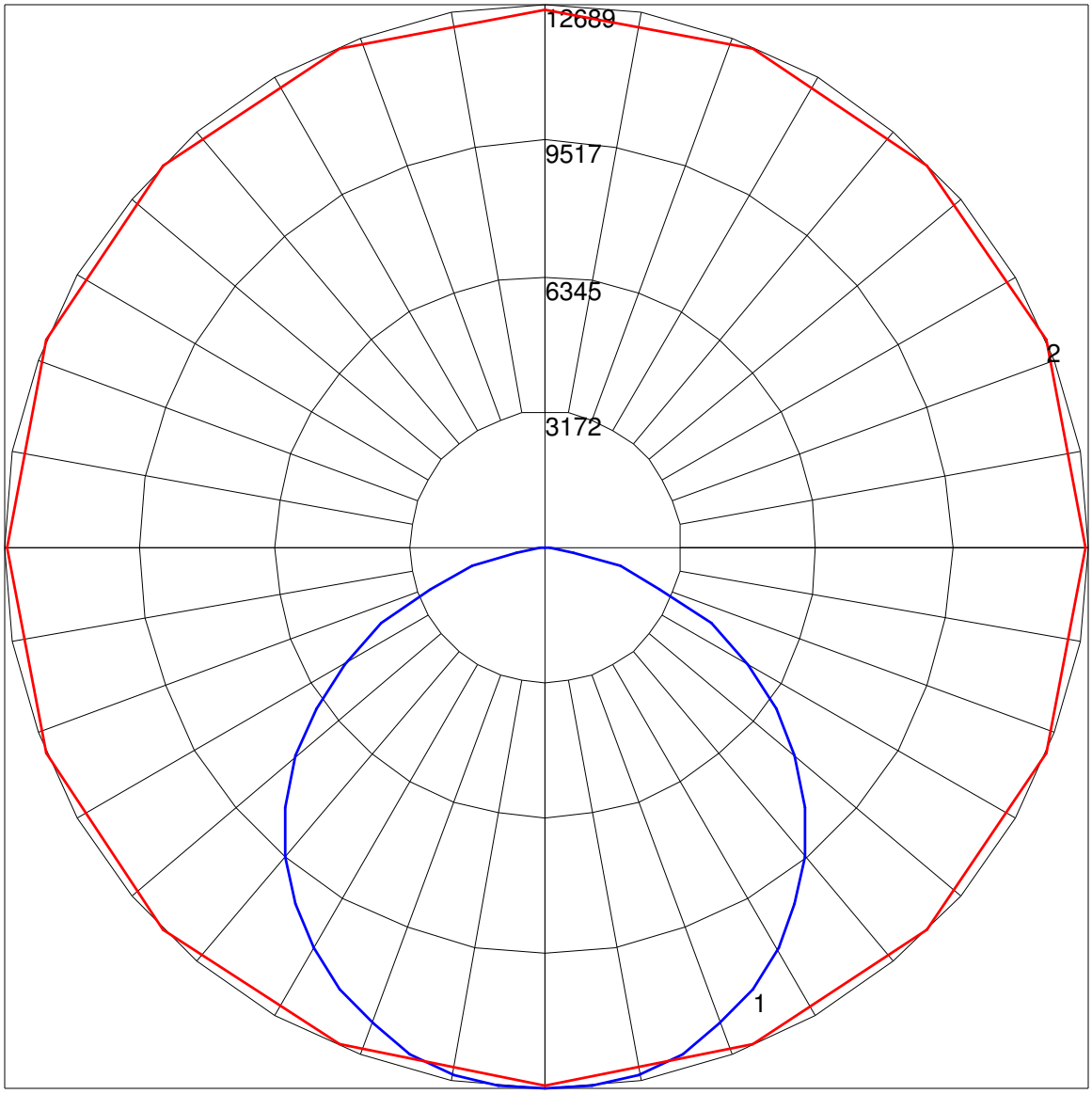
POLAR GRAPH



Maximum Candela = 12689.491 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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