IES INDOOR REPORT
PHOTOMETRIC FILENAME : GP4-L400-840-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-L400-840-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	38934
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	123
Total Luminaire Watts	317
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	50319	51255	45289
55	47244	42416	44433
65	40530	39256	30840
75	30053	22064	15181
85	10450	3813	3318

Photometric Toolbox - Copyright 2002-2019 by Lighting Analysts, Inc.
Calculations based on published IES Methods and recommendations, values rounded for display purposes.
Results derived from content of manufacturers photometric file.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : GP4-L400-840-W-DIM-UNV_.IES

CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	14445.475	14445.475	14445.475	14445.475	14445.475
5	14399.617	14468.404	14433.586	14376.687	14376.687
10	14217.031	14319.788	14308.748	14239.960	14251.001
15	13988.587	14022.556	14011.516	13988.587	14022.556
20	13566.518	13543.588	13623.416	13611.527	13657.386
25	13040.842	13017.912	13132.559	13132.559	13154.639
30	12378.439	12401.368	12549.984	12561.024	12561.024
35	11659.137	11636.208	11853.612	11910.511	11933.440
40	10791.220	10791.220	10950.876	11122.421	11053.633
45	9820.545	9809.505	10003.131	9375.546	8838.830
50	8713.144	8690.214	8667.285	7879.196	7959.024
55	7479.206	7514.025	6714.895	6874.552	7034.208
60	6086.462	6235.078	5686.473	5869.907	5972.665
65	4727.687	4887.343	4579.071	4157.002	3597.356
70	3402.882	3243.226	2878.055	2534.964	2534.964
75	2146.864	2067.036	1576.179	1187.230	1084.472
80	1050.503	765.160	479.817	274.303	320.161
85	251.373	148.616	91.717	79.828	79.828
90	0.000	0.000	0.000	0.000	0.000

Photometric Toolbox - Copyright 2002-2019 by Lighting Analysts, Inc.
Calculations based on published IES Methods and recommendations, values rounded for display purposes.
Results derived from content of manufacturers photometric file.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : GP4-L400-840-W-DIM-UNV_.IES

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	5324.18	N.A.	13.70
0-30	11362.29	N.A.	29.20
0-40	18734.83	N.A.	48.10
0-60	32568.38	N.A.	83.60
0-80	38718.39	N.A.	99.40
0-90	38934.4	N.A.	100.00
10-90	37562.95	N.A.	96.50
20-40	13410.65	N.A.	34.40
20-50	20862.25	N.A.	53.60
40-70	18224.00	N.A.	46.80
60-80	6150.01	N.A.	15.80
70-80	1759.56	N.A.	4.50
80-90	216.01	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	38934.4	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	1371.45
10-20	3952.72
20-30	6038.11
30-40	7372.54
40-50	7451.59
50-60	6381.96
60-70	4390.45
70-80	1759.56
80-90	216.01
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

Photometric Toolbox - Copyright 2002-2019 by Lighting Analysts, Inc.
Calculations based on published IES Methods and recommendations, values rounded for display purposes.
Results derived from content of manufacturers photometric file.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : GP4-L400-840-W-DIM-UNV_.IES

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	101	101	101	101	99	99	99	99	94	94	94	90	90	90	87	87	87	85
1	93	90	86	83	91	88	85	82	84	82	79	81	79	77	78	76	75	73
2	85	79	73	69	83	77	72	68	74	70	66	71	68	65	69	66	63	62
3	78	69	63	58	76	68	62	57	66	60	56	63	59	55	61	57	54	52
4	71	62	54	49	70	61	54	49	58	53	48	56	51	47	55	50	47	45
5	66	55	48	42	64	54	47	42	52	46	42	51	45	41	49	44	41	39
6	61	50	42	37	59	49	42	37	47	41	36	46	40	36	45	40	36	34
7	56	45	38	33	55	44	37	33	43	37	32	42	36	32	41	36	32	30
8	52	41	34	29	51	41	34	29	39	33	29	38	33	29	37	32	29	27
9	49	38	31	26	48	37	31	26	36	30	26	35	30	26	35	29	26	24
10	46	35	28	24	45	34	28	24	34	28	24	33	27	24	32	27	23	22

Photometric Toolbox - Copyright 2002-2019 by Lighting Analysts, Inc.
Calculations based on published IES Methods and recommendations, values rounded for display purposes.
Results derived from content of manufacturers photometric file.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : GP4-L400-840-W-DIM-UNV_.IES

UGR TABLE - CORRECTED

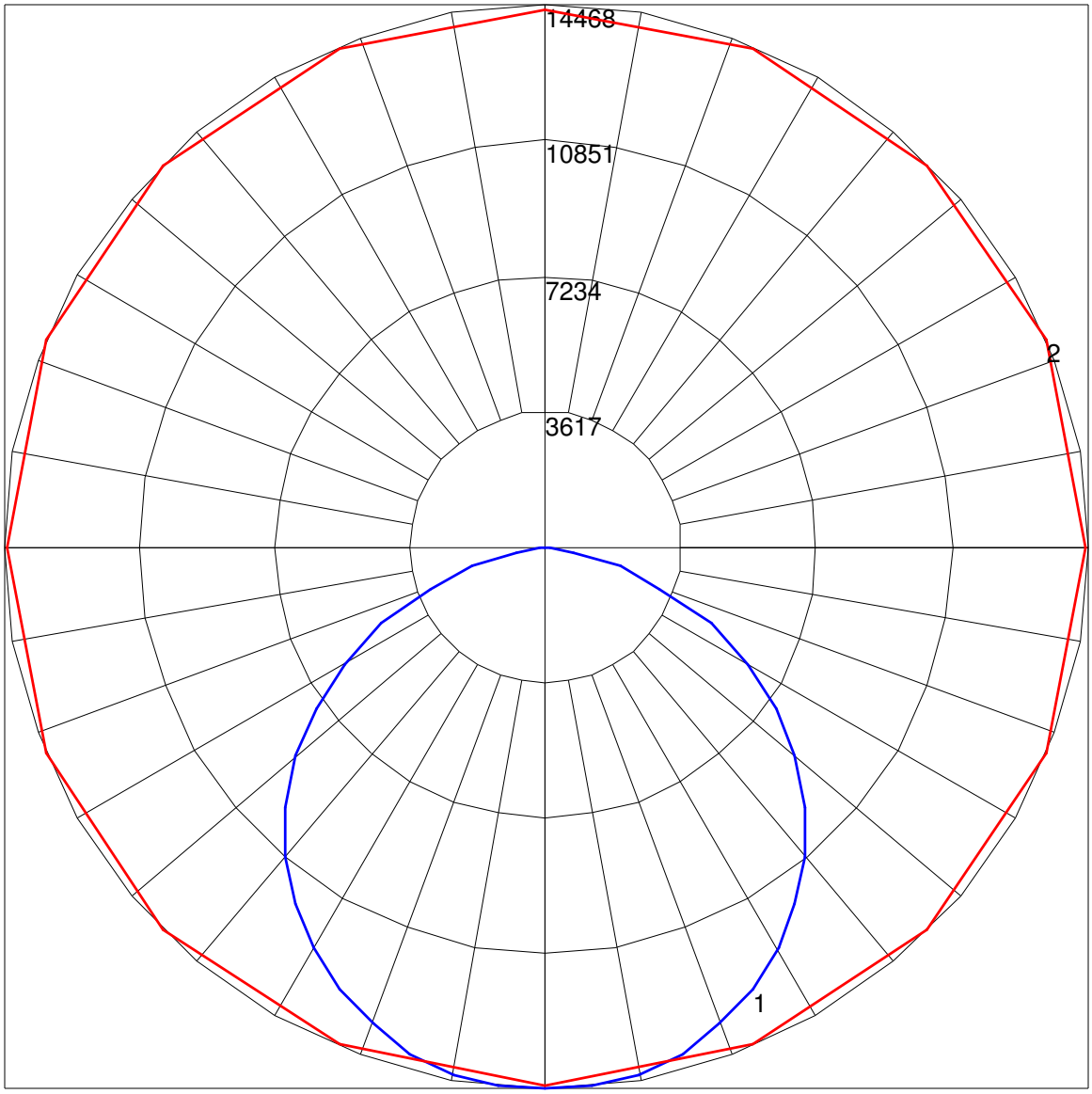
Reflectances											
Ceiling Cavity		70	70	50	50	30	70	70	50	50	30
Walls		50	30	50	30	30	50	30	50	30	30
Floor Cavity		20	20	20	20	20	20	20	20	20	20
Room Size		UGR Viewed Crosswise					UGR Viewed Endwise				
X=2H	Y=2H	26.4	27.9	26.7	28.3	28.6	25.9	27.5	26.2	27.8	28.1
	3H	27.8	29.3	28.2	29.6	29.9	26.9	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

Photometric Toolbox - Copyright 2002-2019 by Lighting Analysts, Inc.
Calculations based on published IES Methods and recommendations, values rounded for display purposes.
Results derived from content of manufacturers photometric file.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : GP4-L400-840-W-DIM-UNV_.IES

POLAR GRAPH



Maximum Candela = 14468.404 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.)