H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : GP2-L200-840-W-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] GEN from BALLABS TEST NO. 19516.0
[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC
[ISSUEDATE] 02-24-2021
[MANUFAC] WILLIAMS INDOOR
[OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO
[LUMINAIRE] 2-192 LED 22"ARRAYS EACH ON ALUM HEATSINK 24X14"HIGHBAY
[MORE] LUMINAIRE W/ NO DIFFUSER/OPEN BOTTOM & CENTER DRIVER HOUSING
[LUMCAT] GP2-L200-840-W-DIM-UNV
[_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	19825
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	141
Total Luminaire Watts	140.4
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.28
Spacing Criterion (90-270)	1.30
Spacing Criterion (Diagonal)	1.42
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	1.88 ft
Luminous Width (90-270)	1.18 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	33137	33623	33564
55	31628	31392	32409
65	28215	28781	24173
75	21647	18227	13479
85	8006	8364	6094

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 : GP2-L200-840-W-DIM-UNV_.IES

CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	7016.192	7016.192	7016.192	7016.192	7016.192
5	7018.329	7005.506	6996.957	6979.860	6996.957
10	6956.352	6949.941	6937.118	6913.609	6926.432
15	6791.793	6781.108	6819.576	6793.930	6800.342
20	6620.823	6578.080	6610.137	6612.274	6625.097
25	6351.545	6355.819	6362.230	6396.424	6411.384
30	6048.073	6041.661	6101.501	6129.283	6159.203
35	5652.704	5703.995	5736.052	5795.891	5815.126
40	5263.747	5272.295	5342.820	5394.111	5400.523
45	4808.538	4812.813	4879.063	4900.435	4870.515
50	4289.216	4291.353	4323.410	4374.701	4349.056
55	3722.877	3748.523	3695.095	3799.814	3814.774
60	3088.150	3135.167	3098.836	3190.732	3248.435
65	2447.012	2466.246	2496.166	2355.115	2096.523
70	1780.228	1797.325	1684.057	1442.561	1455.384
75	1149.775	1160.461	968.119	831.343	715.938
80	564.202	468.031	388.957	380.409	369.723
85	143.188	134.639	149.599	119.679	108.994
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 : GP2-L200-840-W-DIM-UNV_.IES

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	2585.24	N.A.	13.00
0-30	5524.42	N.A.	27.90
0-40	9115.68	N.A.	46.00
0-60	16211.16	N.A.	81.80
0-80	19636.69	N.A.	99.10
0-90	19824.75	N.A.	100.00
10-90	19158.79	N.A.	96.60
20-40	6530.44	N.A.	32.90
20-50	10273.79	N.A.	51.80
40-70	9464.75	N.A.	47.70
60-80	3425.53	N.A.	17.30
70-80	1056.26	N.A.	5.30
80-90	188.06	N.A.	0.90
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	19824.75	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	665.96
10-20	1919.28
20-30	2939.18
30-40	3591.25
40-50	3743.36
50-60	3352.13
60-70	2369.26
70-80	1056.26
80-90	188.06
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 : GP2-L200-840-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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	105	101	97	107	103	99	96	98	95	93	94	92	90	91	89	87	85
2	100	92	85	80	97	90	84	79	86	81	77	83	79	75	80	76	73	71
3	91	81	73	66	88	79	72	66	76	70	65	73	68	63	71	66	62	60
4	83	71	63	56	81	70	62	56	68	61	55	65	59	54	63	58	54	51
5	77	64	55	48	74	63	54	48	61	53	48	59	52	47	57	51	47	44
6	71	57	49	42	69	56	48	42	55	47	42	53	46	41	51	45	41	39
7	65	52	43	37	64	51	43	37	50	42	37	48	42	36	47	41	36	34
8	61	47	39	33	59	47	39	33	45	38	33	44	37	33	43	37	32	31
9	57	43	35	30	55	43	35	30	42	35	30	41	34	29	40	34	29	27
10	53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	27	25

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 : GP2-L200-840-W-DIM-UNV_.IES

UGR TABLE - CORRECTED

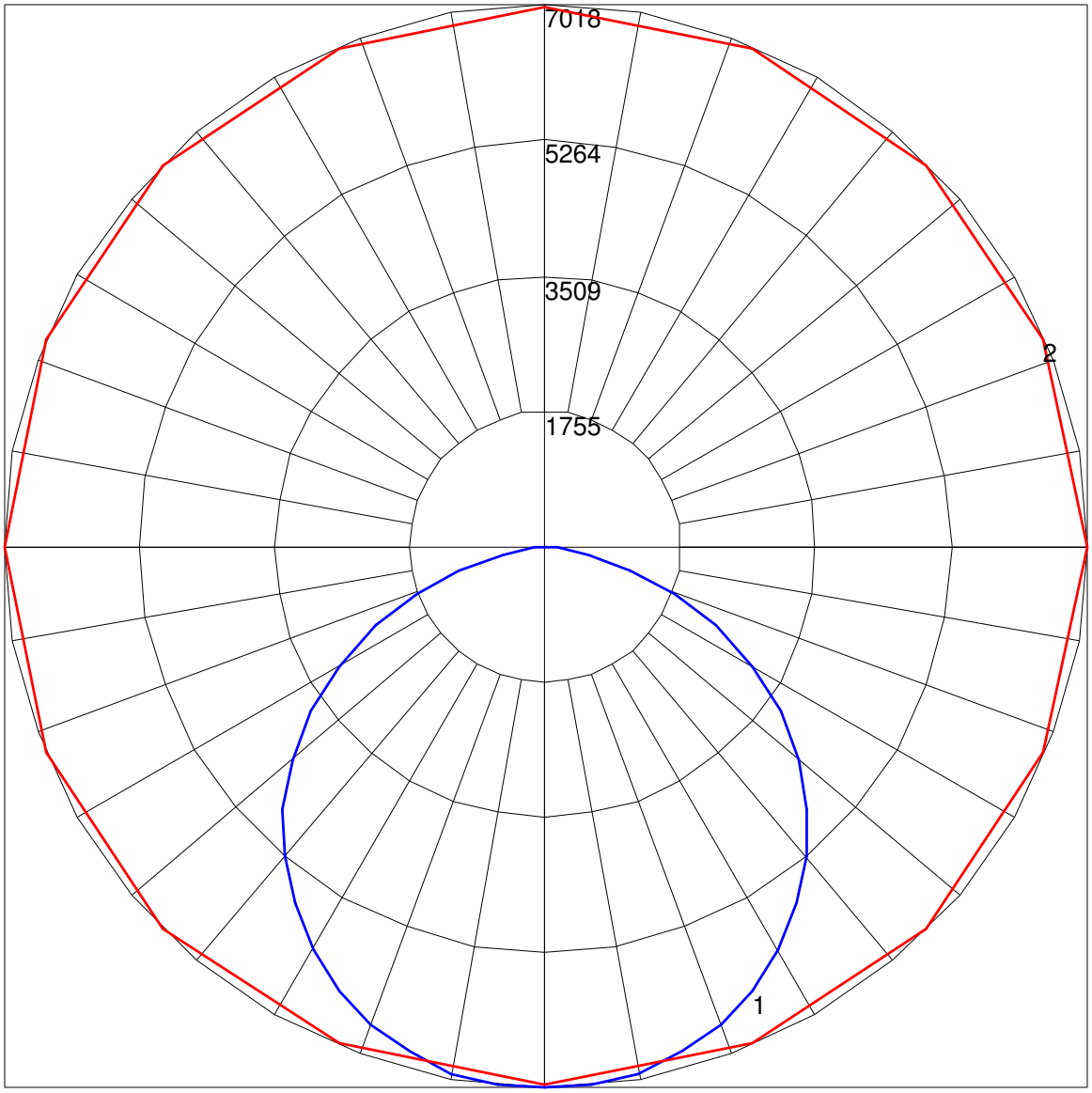
Reflectances											
Ceiling Cavity		70	70	50	50	30	70	70	50	50	30
Walls		50	30	50	30	30	50	30	50	30	30
Floor Cavity		20	20	20	20	20	20	20	20	20	20
Room Size		UGR Viewed Crosswise					UGR Viewed Endwise				
X=2H	Y=2H	24.3	26.0	24.7	26.3	26.6	24.5	26.1	24.8	26.4	26.7
	3H	25.9	27.4	26.3	27.7	28.1	25.6	27.1	26.0	27.4	27.8
	4H	26.5	27.8	26.9	28.2	28.6	25.9	27.2	26.3	27.6	28.0
	6H	26.7	28.0	27.2	28.4	28.8	26.0	27.3	26.4	27.6	28.0
	8H	26.8	28.0	27.2	28.4	28.8	26.0	27.2	26.5	27.6	28.0
	12H	26.8	28.0	27.3	28.4	28.8	26.0	27.2	26.5	27.6	28.0
4H	2H	24.9	26.3	25.3	26.7	27.0	25.1	26.4	25.4	26.8	27.1
	3H	26.7	27.9	27.1	28.3	28.7	26.4	27.5	26.8	27.9	28.3
	4H	27.4	28.4	27.8	28.8	29.2	26.7	27.7	27.1	28.1	28.6
	6H	27.7	28.6	28.2	29.0	29.5	26.9	27.8	27.4	28.2	28.7
	8H	27.8	28.6	28.2	29.1	29.5	26.9	27.8	27.4	28.2	28.7
	12H	27.8	28.6	28.3	29.0	29.5	26.9	27.7	27.4	28.2	28.6
8H	4H	27.5	28.3	28.0	28.8	29.2	26.9	27.7	27.4	28.2	28.6
	6H	27.9	28.6	28.4	29.1	29.5	27.1	27.8	27.6	28.3	28.8
	8H	28.0	28.6	28.5	29.1	29.6	27.2	27.8	27.7	28.3	28.8
	12H	28.1	28.6	28.6	29.1	29.6	27.2	27.8	27.7	28.3	28.8
12H	4H	27.5	28.2	28.0	28.7	29.2	26.9	27.6	27.4	28.1	28.6
	6H	27.9	28.5	28.4	29.0	29.5	27.1	27.8	27.7	28.2	28.8
	8H	28.0	28.6	28.5	29.0	29.6	27.2	27.8	27.7	28.3	28.8

Maximum UGR = 29.6

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 : GP2-L200-840-W-DIM-UNV_.IES

POLAR GRAPH



Maximum Candela = 7018.329 Located At Horizontal Angle = 0, Vertical Angle = 5
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (5) (Through Max. Cd.)

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.