H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : GP4-L300-840-M-EM20W-DIM-UNV_(EMER MODE).IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST]GEN FROM BALLABS TEST NO. 19518.0
[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC
[ISSUEDATE] 02-11-2022
[MANUFAC] WILLIAMS INDOOR
[MANUFAC] H.E. WILLIAMS, INC - CARTHAGE, MO
[LUMINAIRE] 4-192 LED 22"ARRAYS EACH ON ALUM HEATSINK 24x19"HIGHBAY
[MORE] LUMINAIRE w/SPEC MEDIUM DOWNLIGHT REFL & CENTER DRIVER
[MORE] HOUSING 4 ADVANCE #XI095C275V054DNF1 - 18K RESISTORS
[LUMCAT] GP4-L300-840-M-EM20W-DIM-UNV
[LAMPCAT] D5638D192C2560A8N50JRB
[_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	2340
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	117
Total Luminaire Watts	20
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.32
Spacing Criterion (90-270)	1.40
Spacing Criterion (Diagonal)	1.44
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	3608	3783	1968
55	3514	1437	202
65	3302	214	25
75	2672	30	12
85	1193	20	11

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-L300-840-M-EM20W-DIM-UNV_(EMER MODE).IES

CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	995.529	995.529	995.529	995.529	995.529
5	994.933	997.100	998.996	999.267	1001.921
10	984.696	993.688	1007.608	1016.817	1020.879
15	968.229	986.050	1015.625	1037.888	1045.038
20	943.258	973.538	1020.663	1053.000	1060.150
25	912.329	953.875	1018.388	1052.188	1061.450
30	874.304	930.204	1000.946	1028.788	1026.783
35	826.746	895.483	970.558	929.013	901.171
40	767.758	851.717	886.925	735.150	689.921
45	704.221	797.279	738.400	465.454	384.096
50	636.675	735.583	518.646	165.642	72.150
55	556.238	642.850	227.446	36.454	32.013
60	469.029	503.642	39.758	28.817	22.967
65	385.125	295.750	24.971	9.371	2.871
70	293.529	59.150	7.042	1.571	1.192
75	190.883	18.688	2.113	1.192	0.867
80	104.867	5.254	1.517	0.704	0.542
85	28.708	2.654	0.488	0.163	0.271
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-L300-840-M-EM20W-DIM-UNV_(EMER MODE).IES

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	381.94	N.A.	16.30
0-30	843.91	N.A.	36.10
0-40	1408.78	N.A.	60.20
0-60	2171.45	N.A.	92.80
0-80	2333.5	N.A.	99.70
0-90	2340.01	N.A.	100.00
10-90	2244.5	N.A.	95.90
20-40	1026.84	N.A.	43.90
20-50	1511.12	N.A.	64.60
40-70	891.05	N.A.	38.10
60-80	162.04	N.A.	6.90
70-80	33.67	N.A.	1.40
80-90	6.51	N.A.	0.30
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	2340.01	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	95.52
10-20	286.42
20-30	461.97
30-40	564.87
40-50	484.28
50-60	278.40
60-70	128.37
70-80	33.67
80-90	6.51
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-L300-840-M-EM20W-DIM-UNV_(EMER MODE).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	111	107	104	101	109	105	102	99	101	99	96	97	95	93	94	92	91	89
2	103	96	91	86	101	94	89	85	91	87	83	88	84	81	85	82	80	78
3	95	86	80	74	93	85	79	73	82	77	72	79	75	71	77	73	70	68
4	88	78	70	64	86	77	70	64	74	68	63	72	67	62	70	65	62	60
5	82	70	62	57	80	69	62	56	67	61	56	65	60	55	64	59	55	53
6	76	64	56	50	74	63	55	50	61	55	50	60	54	49	58	53	49	47
7	71	58	50	45	69	58	50	45	56	49	44	55	49	44	53	48	44	42
8	66	53	46	40	64	53	45	40	52	45	40	50	44	40	49	44	40	38
9	62	49	42	37	60	49	41	36	48	41	36	47	40	36	46	40	36	34
10	58	46	38	33	57	45	38	33	44	38	33	43	37	33	42	37	33	31

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-L300-840-M-EM20W-DIM-UNV_(EMER MODE).IES

UGR TABLE - CORRECTED

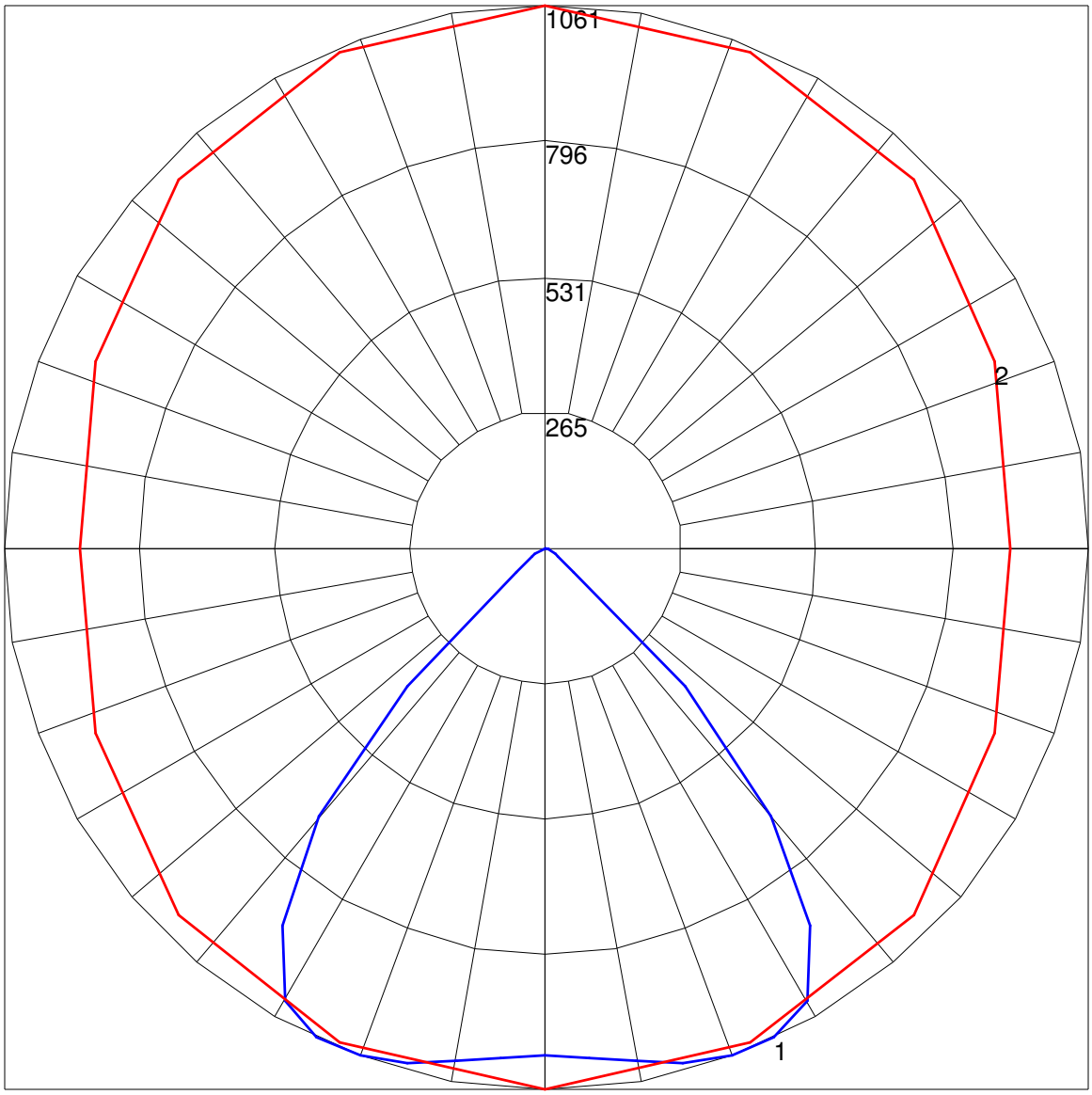
Reflectances											
Ceiling Cavity		70	70	50	50	30	70	70	50	50	30
Walls		50	30	50	30	30	50	30	50	30	30
Floor Cavity		20	20	20	20	20	20	20	20	20	20
Room Size		UGR Viewed Crosswise					UGR Viewed Endwise				
X=2H	Y=2H	18.3	19.7	18.7	20.1	20.4	2.9	2.9	2.9	2.9	2.9
	3H	19.1	20.4	19.5	20.7	21.1	2.9	2.9	2.9	2.9	2.9
	4H	19.4	20.6	19.8	20.9	21.3	2.9	2.9	2.9	2.9	2.9
	6H	19.7	20.7	20.1	21.1	21.5	2.9	2.9	2.9	2.9	2.9
	8H	19.8	20.8	20.2	21.2	21.6	2.9	2.9	2.9	2.9	2.9
	12H	19.8	20.7	20.2	21.1	21.6	2.9	2.9	2.9	2.9	2.9
4H	2H	18.1	19.3	18.5	19.7	20.0	2.9	2.9	2.9	2.9	2.9
	3H	18.9	19.9	19.4	20.3	20.7	2.9	2.9	2.9	2.9	2.9
	4H	19.2	20.1	19.7	20.5	20.9	2.9	2.9	2.9	2.9	2.9
	6H	19.5	20.2	20.0	20.7	21.1	2.9	2.9	2.9	2.9	2.9
	8H	19.6	20.3	20.1	20.7	21.2	2.9	2.9	2.9	2.9	2.9
	12H	19.7	20.2	20.1	20.7	21.2	2.9	2.9	2.9	2.9	2.9
8H	4H	19.1	19.8	19.6	20.2	20.7	2.9	2.9	2.9	2.9	2.9
	6H	19.4	19.9	19.9	20.4	20.9	2.9	2.9	2.9	2.9	2.9
	8H	19.4	19.9	20.0	20.5	21.0	2.9	2.9	2.9	2.9	2.9
	12H	19.5	19.9	20.0	20.4	21.0	2.9	2.9	2.9	2.9	2.9
12H	4H	19.1	19.7	19.6	20.1	20.6	2.9	2.9	2.9	2.9	2.9
	6H	19.3	19.8	19.8	20.3	20.8	2.9	2.9	2.9	2.9	2.9
	8H	19.4	19.9	19.9	20.3	20.9	2.9	2.9	2.9	2.9	2.9

Maximum UGR = 21.6

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 : GP4-L300-840-M-EM20W-DIM-UNV_(EMER MODE).IES

POLAR GRAPH



Maximum Candela = 1061.45 Located At Horizontal Angle = 90, Vertical Angle = 25
1 - Vertical Plane Through Horizontal Angles (90 - 270) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (25) (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.