H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : GP2-L230-850-W-CL-DRV-UNV_30C_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] GEN FROM BALLABS TEST NO. 19477.0
[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC
[ISSUEDATE] 23-SEP-2020
[MANUFAC] WILLIAMS INDOOR
[OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO
[LUMINAIRE] 2-192 LED 22"ARRAYS EACH ON ALUM HEATSINK 24x18"HIGHBAY
[MORE] LUMINAIRE WITH NO DIFFUSER/OPEN BOTTOM & CENTER DRIVER
[MORE] HOUSING 2 ADVANCE #XI095C275V054DNF1 @ 2.45A EACH
[LUMCAT] GP2-L230-850-W-CL-DIM-UNV
[LAMPCAT] D5638D192C2560A8N50
[_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	21254
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	114
Total Luminaire Watts	187
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.30
Spacing Criterion (90-270)	1.32
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	35113	35572	35774
55	33608	34275	34663
65	30359	31612	26885
75	23067	19733	16879
85	9494	9647	9188

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	7385.948	7385.948	7385.948	7385.948	7385.948
5	7409.685	7389.599	7371.340	7326.604	7337.560
10	7346.690	7323.865	7311.997	7270.000	7270.913
15	7196.049	7166.834	7185.094	7158.617	7145.836
20	7000.673	6972.371	6998.847	6977.849	6975.110
25	6717.652	6731.346	6753.258	6735.911	6752.345
30	6404.502	6430.978	6471.149	6441.934	6479.366
35	6024.706	6084.049	6093.179	6105.960	6157.087
40	5604.738	5633.040	5653.126	5725.251	5748.075
45	5095.300	5132.731	5161.947	5225.855	5191.162
50	4549.342	4577.644	4636.987	4670.767	4656.160
55	3955.910	3998.820	4034.426	4071.857	4080.074
60	3315.003	3358.826	3416.343	3431.864	3465.644
65	2633.013	2670.445	2741.656	2601.059	2331.732
70	1920.894	1968.369	1946.457	1605.006	1606.832
75	1225.209	1307.377	1048.092	1050.831	896.539
80	619.908	574.260	448.270	472.007	431.836
85	169.813	204.506	172.552	174.378	164.335
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	2726.23	N.A.	12.80
0-30	5834.15	N.A.	27.40
0-40	9643.74	N.A.	45.40
0-60	17227.13	N.A.	81.10
0-80	21018.68	N.A.	98.90
0-90	21253.93	N.A.	100.00
10-90	20552.82	N.A.	96.70
20-40	6917.51	N.A.	32.50
20-50	10902.04	N.A.	51.30
40-70	10173.1	N.A.	47.90
60-80	3791.56	N.A.	17.80
70-80	1201.85	N.A.	5.70
80-90	235.24	N.A.	1.10
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	21253.93	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	701.10
10-20	2025.13
20-30	3107.92
30-40	3809.59
40-50	3984.53
50-60	3598.86
60-70	2589.71
70-80	1201.85
80-90	235.24
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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	105	101	97	106	102	99	95	98	95	92	94	92	89	91	89	87	85
2	99	91	85	79	97	89	83	78	86	81	76	83	78	75	80	76	73	71
3	91	80	72	66	88	79	71	65	76	69	64	73	68	63	70	66	62	60
4	83	71	62	56	81	70	62	55	67	60	55	65	59	54	63	57	53	51
5	76	63	55	48	74	62	54	48	60	53	47	58	52	47	56	51	46	44
6	70	57	48	42	68	56	48	42	54	47	41	53	46	41	51	45	40	38
7	65	52	43	37	63	51	43	37	49	42	36	48	41	36	47	40	36	34
8	61	47	39	33	59	46	38	33	45	38	32	44	37	32	43	37	32	30
9	57	43	35	29	55	43	35	29	41	34	29	40	34	29	39	33	29	27
10	53	40	32	27	52	39	32	27	38	31	26	37	31	26	36	31	26	24

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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	24.5	26.1	24.9	26.4	26.8	24.7	26.3	25.0	26.6	26.9
	3H	26.1	27.6	26.5	27.9	28.3	25.9	27.3	26.3	27.7	28.0
	4H	26.7	28.1	27.1	28.4	28.8	26.2	27.6	26.6	27.9	28.3
	6H	27.0	28.3	27.4	28.6	29.0	26.4	27.7	26.8	28.0	28.4
	8H	27.0	28.3	27.5	28.7	29.1	26.4	27.6	26.8	28.0	28.4
	12H	27.1	28.2	27.5	28.6	29.1	26.4	27.6	26.9	28.0	28.4
4H	2H	25.2	26.5	25.6	26.9	27.3	25.3	26.7	25.7	27.0	27.4
	3H	27.0	28.1	27.4	28.5	28.9	26.7	27.8	27.1	28.2	28.6
	4H	27.6	28.7	28.1	29.1	29.5	27.1	28.2	27.5	28.6	29.0
	6H	28.0	28.9	28.5	29.4	29.8	27.4	28.3	27.8	28.7	29.2
	8H	28.1	28.9	28.6	29.4	29.9	27.4	28.3	27.9	28.7	29.2
	12H	28.2	28.9	28.6	29.4	29.9	27.5	28.2	27.9	28.7	29.1
8H	4H	27.8	28.6	28.2	29.1	29.5	27.3	28.2	27.8	28.6	29.1
	6H	28.2	28.9	28.7	29.4	29.9	27.6	28.3	28.1	28.8	29.3
	8H	28.4	29.0	28.9	29.5	30.0	27.7	28.3	28.2	28.8	29.3
	12H	28.4	29.0	28.9	29.5	30.0	27.8	28.3	28.3	28.8	29.4
12H	4H	27.8	28.5	28.3	29.0	29.5	27.3	28.1	27.8	28.6	29.0
	6H	28.2	28.9	28.8	29.3	29.9	27.6	28.3	28.2	28.7	29.3
	8H	28.4	28.9	28.9	29.4	30.0	27.7	28.3	28.2	28.8	29.3

Maximum UGR = 30.0

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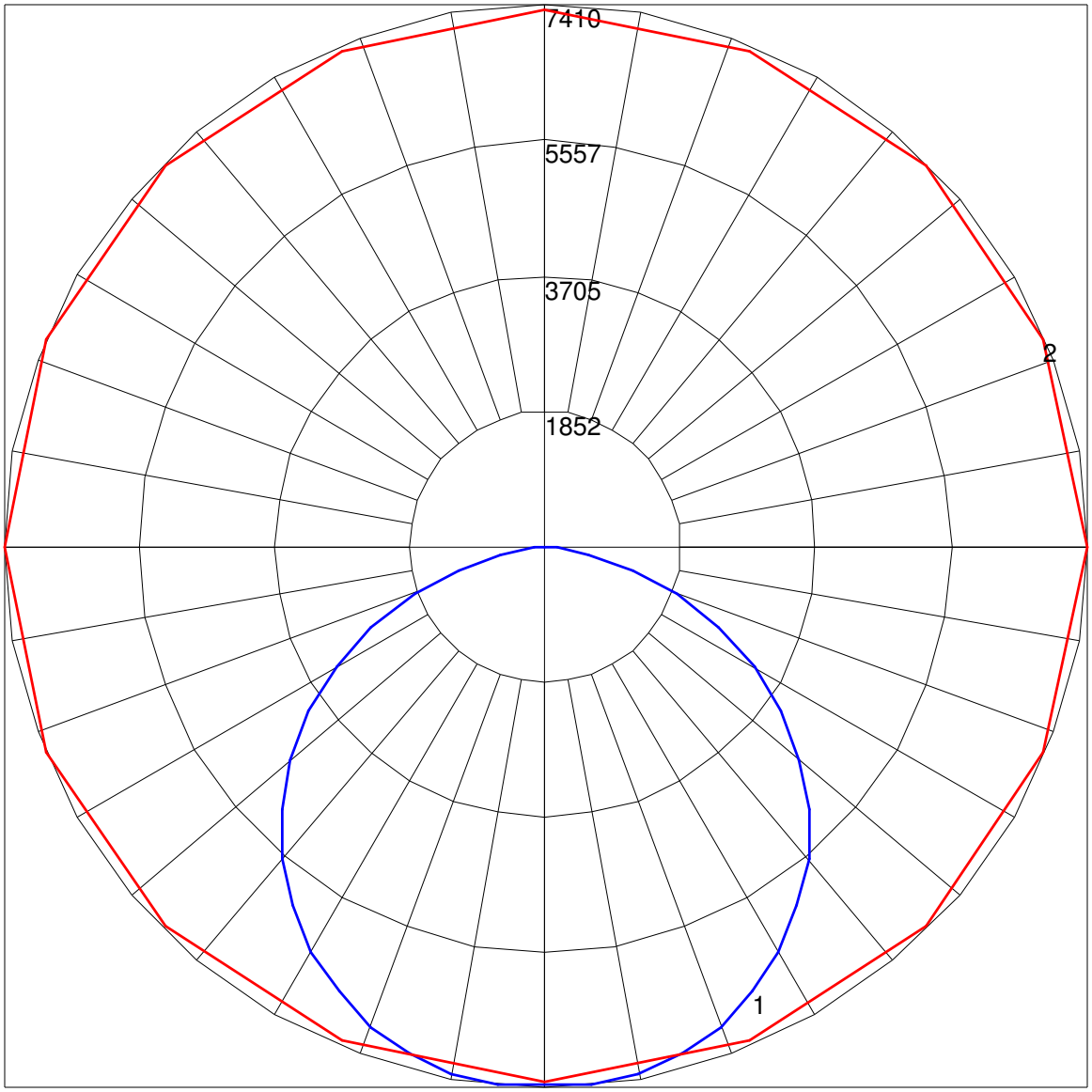
POLAR GRAPH



Maximum Candela = 7409.685 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.)

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