H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : PT-14-L61-835-RA-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] GEN FROM BALLABS TEST NO. 19323.0
[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC
[ISSUEDATE] 2023-06-23
[MANUFAC] WILLIAMS INDOOR
[OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO
[LUMINAIRE] 1x4'RECESSED LED LUMINAIRE
[MORE] WHITE REFLECTOR w/WHITE RIBBED ACRYLIC LENS
[MORE] 0-10V LED DRIVER
[LUMCAT] PT-14-L61-835-RA-DIM-UNV
[LAMPCAT] 22" LED ARRAYS
[_SEARCH_SOURCETYPE] LED
[_SEARCH_APPLICATION] Indoor, Architectural, Office, Direct
[_SEARCH_MOUNTING] Recessed

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	6181
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	136
Total Luminaire Watts	45.5
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.26
Spacing Criterion (90-270)	1.26
Spacing Criterion (Diagonal)	1.36
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	3.92 ft
Luminous Width (90-270)	0.94 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	5785	6042	6130
55	5105	5610	5848
65	4443	5265	5402
75	3228	4522	4714
85	1471	2420	2847

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	2252.518	2252.518	2252.518	2252.518	2252.518
5	2303.391	2286.433	2277.954	2256.757	2244.039
10	2263.823	2251.105	2246.866	2224.256	2212.951
15	2201.646	2190.341	2195.993	2169.144	2169.144
20	2112.619	2108.380	2118.271	2092.835	2101.314
25	2013.700	2003.808	2023.592	2005.222	1999.569
30	1897.824	1879.454	1907.716	1897.824	1894.998
35	1752.273	1738.141	1774.883	1767.817	1776.296
40	1582.698	1579.872	1619.439	1625.091	1618.026
45	1397.579	1401.818	1459.756	1472.474	1480.953
50	1201.155	1222.351	1283.116	1314.204	1314.204
55	1000.491	1040.059	1099.410	1160.174	1146.043
60	819.611	853.526	924.182	973.642	966.576
65	641.558	671.233	760.260	795.588	780.044
70	457.852	512.964	586.446	603.404	596.338
75	285.451	358.933	399.914	416.871	416.871
80	145.552	213.382	228.926	241.644	231.752
85	43.807	83.374	72.069	79.135	84.787
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	831.80	N.A.	13.50
0-30	1757.74	N.A.	28.40
0-40	2858.04	N.A.	46.20
0-60	4947.82	N.A.	80.00
0-80	6080.99	N.A.	98.40
0-90	6181.03	N.A.	100.00
10-90	5965.44	N.A.	96.50
20-40	2026.24	N.A.	32.80
20-50	3139.02	N.A.	50.80
40-70	2816.95	N.A.	45.60
60-80	1133.17	N.A.	18.30
70-80	406.00	N.A.	6.60
80-90	100.04	N.A.	1.60
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	6181.03	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	215.59
10-20	616.22
20-30	925.94
30-40	1100.3
40-50	1112.78
50-60	977.00
60-70	727.17
70-80	406.00
80-90	100.04
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	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84
2	99	91	84	79	97	89	83	78	86	80	76	82	78	74	79	76	73	70
3	91	80	72	66	88	78	71	65	76	69	64	73	67	63	70	66	62	59
4	83	71	62	56	81	70	62	55	67	60	55	65	59	54	63	57	53	51
5	76	64	55	48	74	62	54	48	60	53	47	58	52	47	56	51	46	44
6	71	57	48	42	69	56	48	42	54	47	41	53	46	41	51	45	41	39
7	65	52	43	37	64	51	43	37	50	42	37	48	41	36	47	41	36	34
8	61	47	39	33	59	47	39	33	45	38	33	44	38	33	43	37	32	31
9	57	44	35	30	56	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

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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	17.6	19.2	17.9	19.5	19.8	18.4	20.0	18.8	20.4	20.7
	3H	19.1	20.6	19.5	20.9	21.3	20.2	21.7	20.6	22.0	22.4
	4H	19.6	21.0	20.0	21.4	21.7	20.9	22.2	21.3	22.6	23.0
	6H	19.9	21.2	20.4	21.6	22.0	21.3	22.6	21.7	22.9	23.3
	8H	20.0	21.2	20.4	21.6	22.0	21.4	22.6	21.8	23.0	23.4
	12H	20.0	21.2	20.5	21.6	22.0	21.5	22.7	21.9	23.0	23.5
4H	2H	18.3	19.7	18.7	20.0	20.4	19.0	20.4	19.4	20.7	21.1
	3H	20.1	21.3	20.5	21.7	22.1	21.0	22.2	21.4	22.6	23.0
	4H	20.8	21.8	21.2	22.2	22.7	21.8	22.8	22.2	23.3	23.7
	6H	21.2	22.1	21.7	22.6	23.0	22.4	23.3	22.8	23.7	24.2
	8H	21.3	22.2	21.8	22.6	23.1	22.5	23.4	23.0	23.8	24.3
	12H	21.4	22.2	21.9	22.6	23.1	22.6	23.4	23.1	23.9	24.4
8H	4H	21.2	22.0	21.6	22.5	22.9	22.1	22.9	22.5	23.4	23.8
	6H	21.8	22.5	22.2	22.9	23.4	22.8	23.5	23.3	24.0	24.4
	8H	21.9	22.6	22.4	23.1	23.6	23.0	23.6	23.5	24.1	24.6
	12H	22.1	22.6	22.6	23.1	23.7	23.1	23.7	23.6	24.2	24.8
12H	4H	21.2	22.0	21.7	22.5	22.9	22.1	22.9	22.6	23.3	23.8
	6H	21.8	22.5	22.3	22.9	23.5	22.8	23.4	23.3	23.9	24.4
	8H	22.1	22.6	22.6	23.1	23.7	23.1	23.6	23.6	24.1	24.7

Maximum UGR = 24.8

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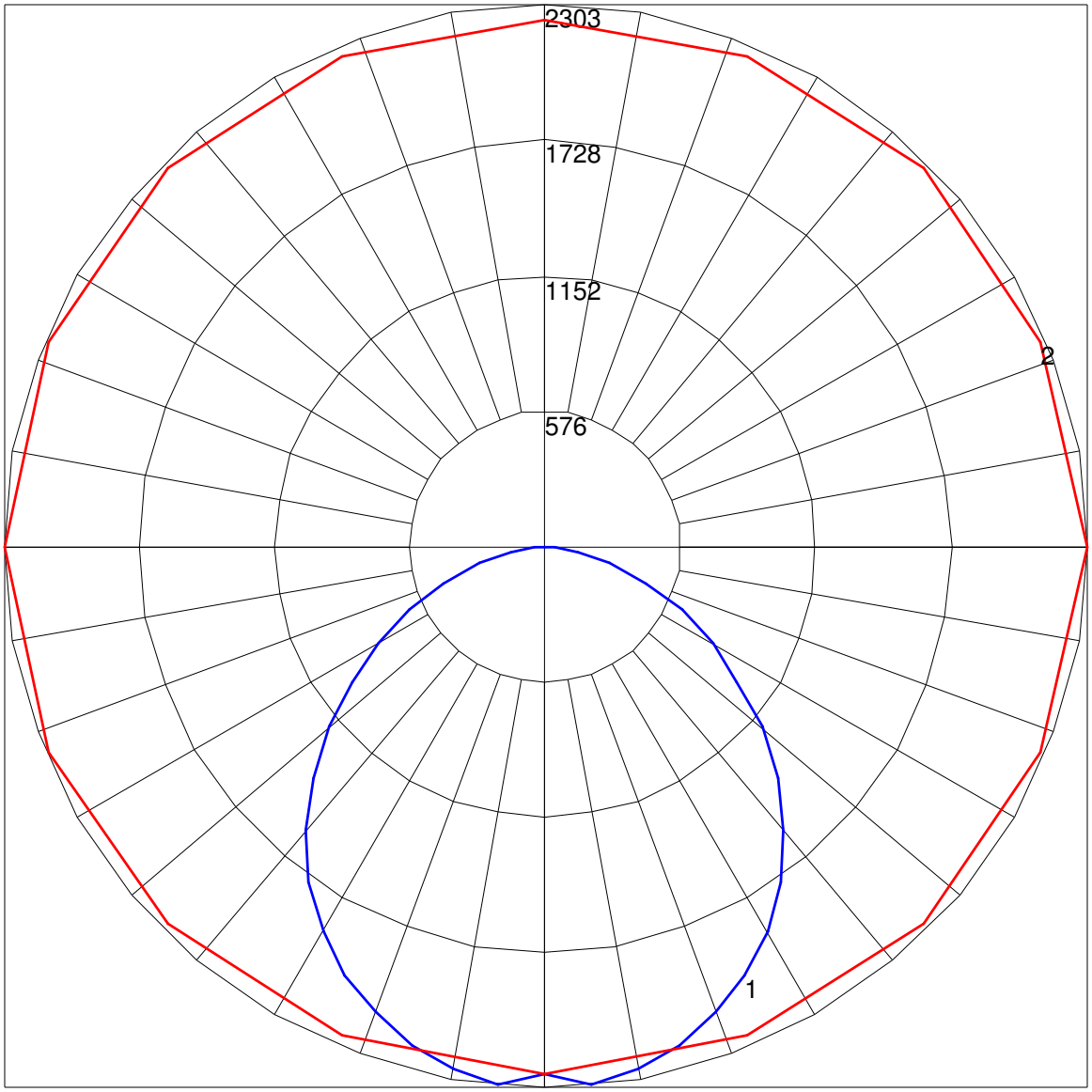
POLAR GRAPH



Maximum Candela = 2303.391 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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