H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : PT-14-L61-830-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-L61-830-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	6119
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	134
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	5727	5982	6069
55	5054	5554	5790
65	4399	5213	5348
75	3196	4477	4667
85	1456	2396	2819

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	2229.993	2229.993	2229.993	2229.993	2229.993
5	2280.357	2263.569	2255.175	2234.190	2221.599
10	2241.185	2228.594	2224.397	2202.013	2190.821
15	2179.629	2168.438	2174.033	2147.453	2147.453
20	2091.493	2087.296	2097.089	2071.907	2080.301
25	1993.564	1983.771	2003.356	1985.170	1979.574
30	1878.846	1860.659	1888.639	1878.846	1876.048
35	1734.750	1720.760	1757.134	1750.139	1758.533
40	1566.871	1564.073	1603.245	1608.841	1601.846
45	1383.603	1387.800	1445.159	1457.750	1466.144
50	1189.143	1210.128	1270.285	1301.063	1301.063
55	990.486	1029.658	1088.416	1148.572	1134.582
60	811.415	844.991	914.941	963.905	956.910
65	635.142	664.521	752.658	787.632	772.244
70	453.273	507.834	580.582	597.370	590.375
75	282.596	355.344	395.915	412.703	412.703
80	144.096	211.248	226.637	239.228	229.435
85	43.369	82.541	71.349	78.344	83.940
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	823.48	N.A.	13.50
0-30	1740.16	N.A.	28.40
0-40	2829.46	N.A.	46.20
0-60	4898.34	N.A.	80.00
0-80	6020.18	N.A.	98.40
0-90	6119.22	N.A.	100.00
10-90	5905.79	N.A.	96.50
20-40	2005.98	N.A.	32.80
20-50	3107.63	N.A.	50.80
40-70	2788.78	N.A.	45.60
60-80	1121.84	N.A.	18.30
70-80	401.94	N.A.	6.60
80-90	99.04	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	6119.22	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	213.43
10-20	610.06
20-30	916.68
30-40	1089.3
40-50	1101.65
50-60	967.23
60-70	719.90
70-80	401.94
80-90	99.04
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	79	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	55	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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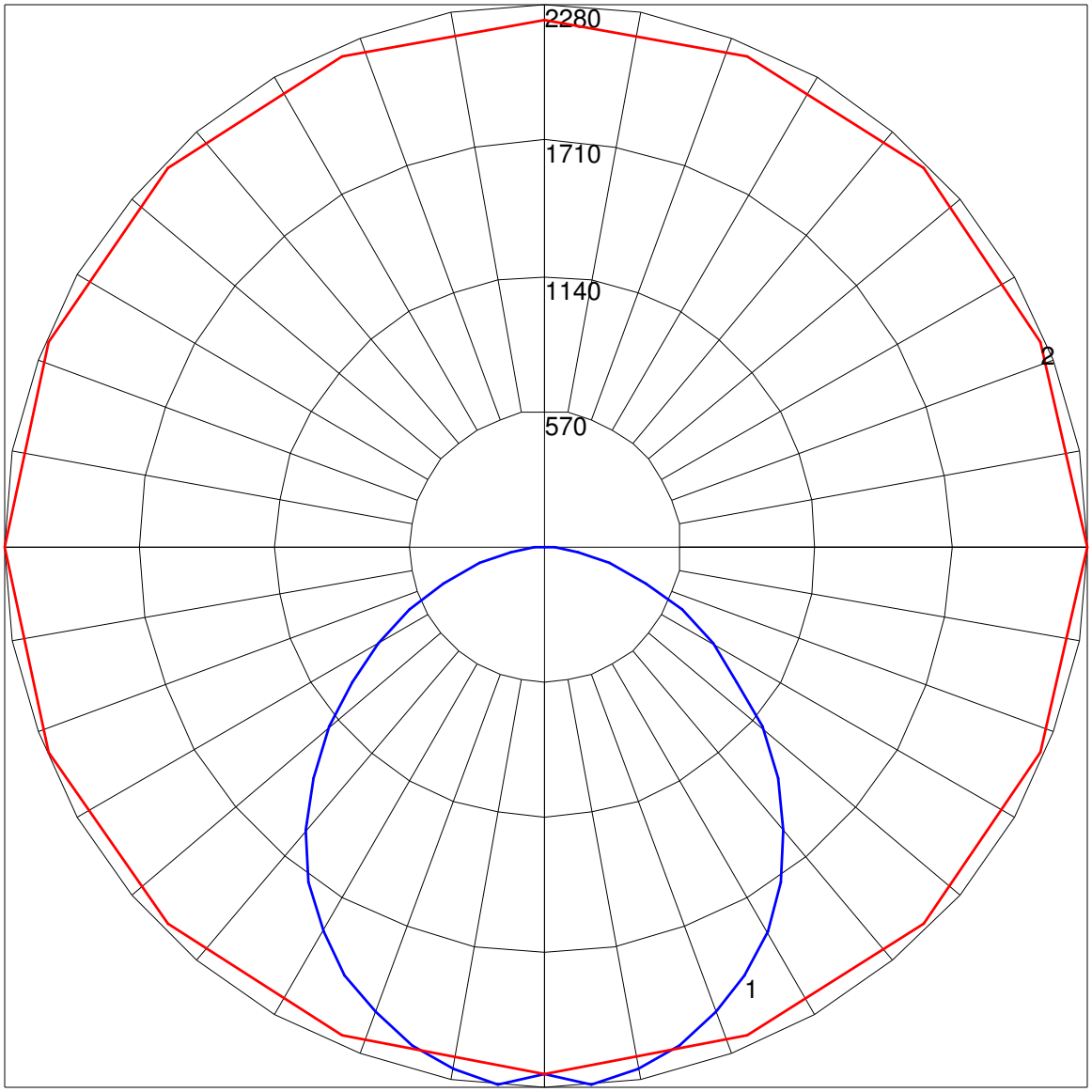
POLAR GRAPH



Maximum Candela = 2280.357 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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