H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : PT-14-L80-840-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-L80-840-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	8217
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	133
Total Luminaire Watts	61.9
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	7691	8033	8150
55	6787	7458	7775
65	5907	7000	7182
75	4292	6012	6267
85	1956	3218	3785

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	2994.614	2994.614	2994.614	2994.614	2994.614
5	3062.247	3039.703	3028.431	3000.250	2983.342
10	3009.644	2992.736	2987.100	2957.041	2942.011
15	2926.982	2911.953	2919.467	2883.772	2883.772
20	2808.625	2802.989	2816.140	2782.324	2793.596
25	2677.118	2663.967	2690.268	2665.846	2658.331
30	2523.066	2498.643	2536.217	2523.066	2519.309
35	2329.562	2310.775	2359.621	2350.227	2361.500
40	2104.121	2100.363	2152.966	2160.481	2151.087
45	1858.014	1863.650	1940.675	1957.584	1968.856
50	1596.877	1625.057	1705.841	1747.172	1747.172
55	1330.105	1382.708	1461.612	1542.395	1523.609
60	1089.634	1134.722	1228.656	1294.410	1285.016
65	852.920	892.373	1010.729	1057.696	1037.031
70	608.692	681.960	779.652	802.196	792.803
75	379.493	477.184	531.666	554.210	554.210
80	193.504	283.681	304.346	321.254	308.103
85	58.239	110.842	95.813	105.206	112.721
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	1105.84	N.A.	13.50
0-30	2336.83	N.A.	28.40
0-40	3799.63	N.A.	46.20
0-60	6577.89	N.A.	80.00
0-80	8084.39	N.A.	98.40
0-90	8217.38	N.A.	100.00
10-90	7930.77	N.A.	96.50
20-40	2693.79	N.A.	32.80
20-50	4173.17	N.A.	50.80
40-70	3745.00	N.A.	45.60
60-80	1506.5	N.A.	18.30
70-80	539.76	N.A.	6.60
80-90	133.00	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	8217.38	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	286.61
10-20	819.23
20-30	1230.99
30-40	1462.8
40-50	1479.38
50-60	1298.87
60-70	966.74
70-80	539.76
80-90	133.00
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	18.6	20.2	18.9	20.5	20.8	19.4	21.0	19.8	21.4	21.7
	3H	20.1	21.6	20.5	21.9	22.3	21.2	22.7	21.6	23.0	23.4
	4H	20.6	22.0	21.0	22.4	22.7	21.9	23.2	22.3	23.6	24.0
	6H	20.9	22.2	21.4	22.6	23.0	22.3	23.6	22.7	23.9	24.3
	8H	21.0	22.2	21.4	22.6	23.0	22.4	23.6	22.8	24.0	24.4
	12H	21.0	22.2	21.5	22.6	23.0	22.5	23.7	22.9	24.0	24.5
4H	2H	19.3	20.7	19.7	21.0	21.4	20.0	21.4	20.4	21.7	22.1
	3H	21.1	22.3	21.5	22.7	23.1	22.0	23.2	22.4	23.6	24.0
	4H	21.8	22.8	22.2	23.2	23.7	22.8	23.8	23.2	24.3	24.7
	6H	22.2	23.1	22.7	23.6	24.0	23.4	24.3	23.8	24.7	25.2
	8H	22.3	23.2	22.8	23.6	24.1	23.5	24.4	24.0	24.8	25.3
	12H	22.4	23.2	22.9	23.6	24.1	23.6	24.4	24.1	24.9	25.4
8H	4H	22.2	23.0	22.6	23.5	23.9	23.1	23.9	23.5	24.4	24.8
	6H	22.8	23.5	23.2	23.9	24.4	23.8	24.5	24.3	25.0	25.4
	8H	22.9	23.6	23.4	24.1	24.6	24.0	24.6	24.5	25.1	25.6
	12H	23.1	23.6	23.6	24.1	24.7	24.1	24.7	24.6	25.2	25.8
12H	4H	22.2	23.0	22.7	23.5	23.9	23.1	23.9	23.6	24.3	24.8
	6H	22.8	23.5	23.3	23.9	24.5	23.8	24.4	24.3	24.9	25.4
	8H	23.1	23.6	23.6	24.1	24.7	24.1	24.6	24.6	25.1	25.7

Maximum UGR = 25.8

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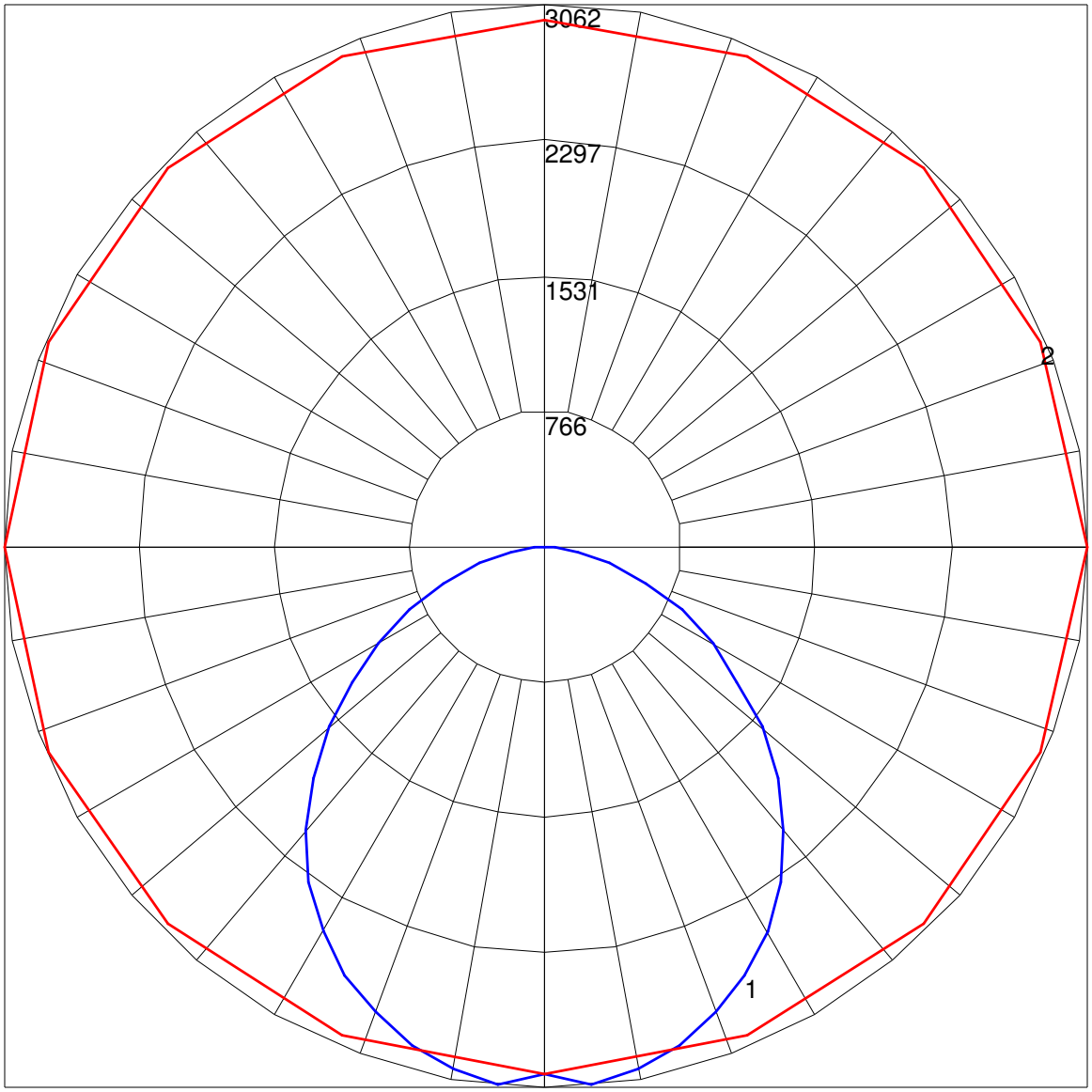
POLAR GRAPH



Maximum Candela = 3062.247 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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