H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : PT-14-L27-930-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-L27-930-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	2180
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	116
Total Luminaire Watts	18.8
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	2040	2131	2162
55	1800	1978	2062
65	1567	1857	1905
75	1138	1595	1662
85	519	853	1004

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	794.296	794.296	794.296	794.296	794.296
5	812.235	806.255	803.265	795.791	791.306
10	798.282	793.798	792.303	784.330	780.343
15	776.357	772.371	774.364	764.896	764.896
20	744.964	743.469	746.957	737.988	740.977
25	710.083	706.594	713.571	707.093	705.100
30	669.222	662.744	672.710	669.222	668.225
35	617.896	612.913	625.869	623.378	626.368
40	558.100	557.103	571.056	573.049	570.558
45	492.822	494.317	514.748	519.232	522.222
50	423.558	431.033	452.460	463.422	463.422
55	352.799	366.751	387.680	409.107	404.124
60	289.016	300.975	325.891	343.331	340.840
65	226.230	236.694	268.087	280.545	275.064
70	161.450	180.884	206.796	212.776	210.284
75	100.657	126.569	141.020	147.000	147.000
80	51.325	75.244	80.725	85.210	81.722
85	15.447	29.400	25.413	27.905	29.898
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	293.31	N.A.	13.50
0-30	619.83	N.A.	28.40
0-40	1007.82	N.A.	46.20
0-60	1744.73	N.A.	80.00
0-80	2144.31	N.A.	98.40
0-90	2179.59	N.A.	100.00
10-90	2103.57	N.A.	96.50
20-40	714.50	N.A.	32.80
20-50	1106.9	N.A.	50.80
40-70	993.33	N.A.	45.60
60-80	399.59	N.A.	18.30
70-80	143.17	N.A.	6.60
80-90	35.28	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	2179.59	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	76.02
10-20	217.29
20-30	326.51
30-40	387.99
40-50	392.39
50-60	344.51
60-70	256.42
70-80	143.17
80-90	35.28
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	72	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	54	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	70	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	14.0	15.6	14.3	15.9	16.2	14.8	16.4	15.2	16.8	17.1
	3H	15.5	17.0	15.9	17.3	17.7	16.6	18.1	17.0	18.4	18.8
	4H	16.0	17.4	16.4	17.8	18.1	17.3	18.6	17.7	19.0	19.4
	6H	16.3	17.6	16.8	18.0	18.4	17.7	19.0	18.1	19.3	19.7
	8H	16.4	17.6	16.8	18.0	18.4	17.8	19.1	18.2	19.4	19.8
	12H	16.4	17.6	16.9	18.0	18.4	17.9	19.1	18.3	19.4	19.9
4H	2H	14.7	16.1	15.1	16.4	16.8	15.4	16.8	15.8	17.1	17.5
	3H	16.5	17.7	16.9	18.1	18.5	17.4	18.6	17.8	19.0	19.4
	4H	17.2	18.2	17.6	18.6	19.1	18.2	19.2	18.6	19.7	20.1
	6H	17.6	18.5	18.1	19.0	19.4	18.8	19.7	19.2	20.1	20.6
	8H	17.7	18.6	18.2	19.0	19.5	18.9	19.8	19.4	20.2	20.7
	12H	17.8	18.6	18.3	19.0	19.5	19.0	19.8	19.5	20.3	20.8
8H	4H	17.6	18.4	18.0	18.9	19.3	18.5	19.3	18.9	19.8	20.2
	6H	18.2	18.9	18.6	19.3	19.8	19.2	19.9	19.7	20.4	20.8
	8H	18.3	19.0	18.8	19.5	20.0	19.4	20.0	19.9	20.5	21.0
	12H	18.5	19.0	19.0	19.5	20.1	19.5	20.1	20.0	20.6	21.2
12H	4H	17.6	18.4	18.1	18.9	19.3	18.5	19.3	19.0	19.7	20.2
	6H	18.2	18.9	18.7	19.3	19.9	19.2	19.8	19.7	20.3	20.8
	8H	18.5	19.0	19.0	19.5	20.1	19.5	20.0	20.0	20.5	21.1

Maximum UGR = 21.2

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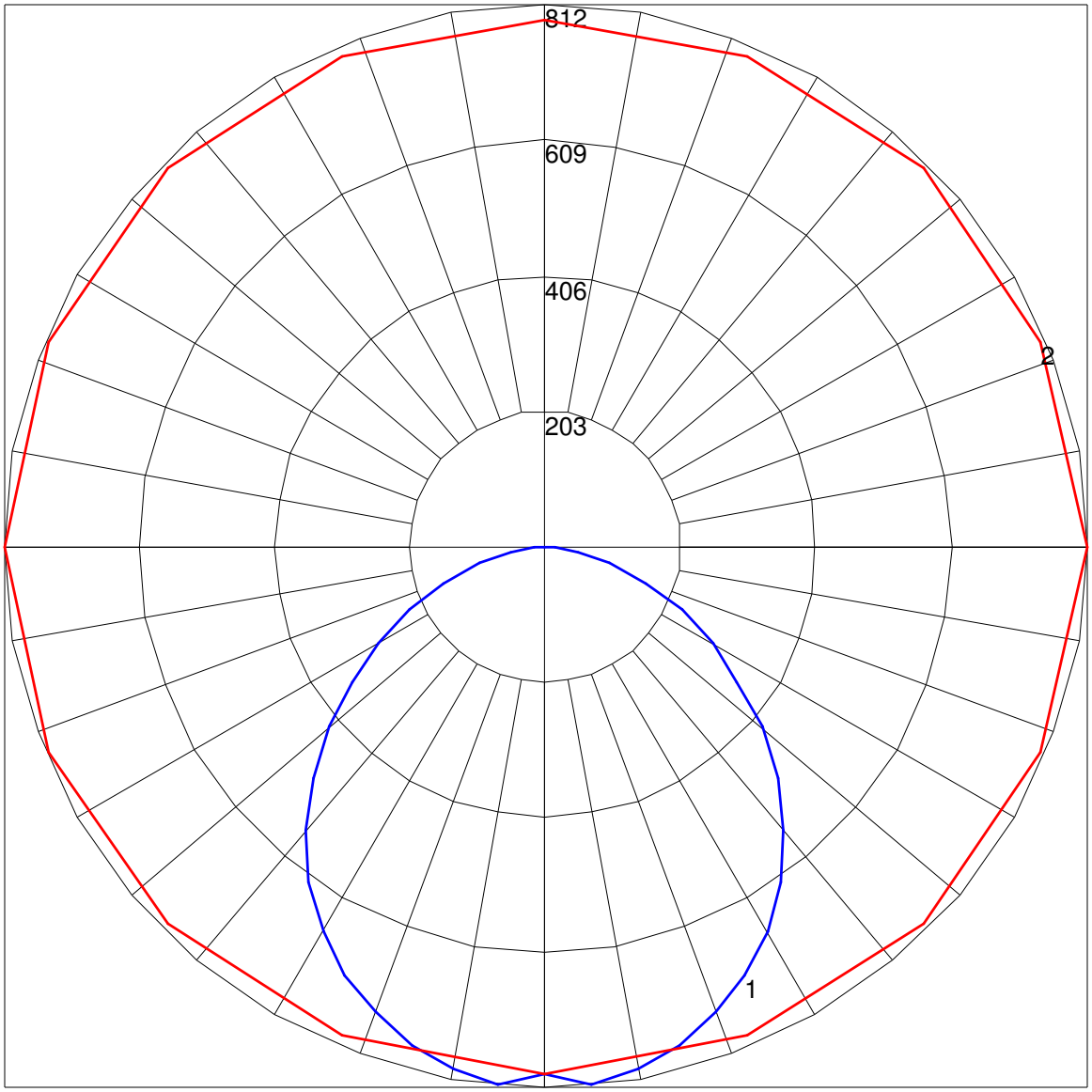
POLAR GRAPH



Maximum Candela = 812.235 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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