H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : PT-14-L61-927-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-L61-927-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	5068
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	111
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	4744	4955	5027
55	4186	4600	4795
65	3643	4318	4430
75	2647	3708	3866
85	1206	1985	2335

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	1847.065	1847.065	1847.065	1847.065	1847.065
5	1888.780	1874.875	1867.923	1850.541	1840.113
10	1856.335	1845.906	1842.430	1823.890	1814.620
15	1805.350	1796.080	1800.715	1778.698	1778.698
20	1732.348	1728.871	1736.983	1716.125	1723.078
25	1651.234	1643.123	1659.346	1644.282	1639.647
30	1556.216	1541.152	1564.327	1556.216	1553.899
35	1436.864	1425.276	1455.404	1449.610	1456.563
40	1297.812	1295.495	1327.940	1332.575	1326.781
45	1146.015	1149.491	1197.000	1207.429	1214.382
50	984.947	1002.328	1052.155	1077.648	1077.648
55	820.403	852.848	901.516	951.343	939.755
60	672.081	699.892	757.830	798.386	792.593
65	526.078	550.411	623.413	652.382	639.636
70	375.439	420.630	480.886	494.791	488.997
75	234.070	294.325	327.929	341.835	341.835
80	119.352	174.973	187.719	198.148	190.037
85	35.922	68.367	59.097	64.891	69.526
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	682.08	N.A.	13.50
0-30	1441.35	N.A.	28.40
0-40	2343.6	N.A.	46.20
0-60	4057.21	N.A.	80.00
0-80	4986.41	N.A.	98.40
0-90	5068.45	N.A.	100.00
10-90	4891.67	N.A.	96.50
20-40	1661.52	N.A.	32.80
20-50	2574.00	N.A.	50.80
40-70	2309.9	N.A.	45.60
60-80	929.20	N.A.	18.30
70-80	332.92	N.A.	6.60
80-90	82.03	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	5068.45	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	176.78
10-20	505.30
20-30	759.27
30-40	902.25
40-50	912.48
50-60	801.14
60-70	596.28
70-80	332.92
80-90	82.03
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	16.9	18.5	17.2	18.8	19.1	17.7	19.3	18.1	19.7	20.0
	3H	18.4	19.9	18.8	20.2	20.6	19.5	21.0	19.9	21.3	21.7
	4H	18.9	20.3	19.3	20.7	21.0	20.2	21.5	20.6	21.9	22.3
	6H	19.2	20.5	19.7	20.9	21.3	20.6	21.9	21.0	22.2	22.6
	8H	19.3	20.5	19.7	20.9	21.3	20.7	21.9	21.1	22.3	22.7
	12H	19.3	20.5	19.8	20.9	21.3	20.8	22.0	21.2	22.3	22.8
4H	2H	17.6	19.0	18.0	19.3	19.7	18.3	19.7	18.7	20.0	20.4
	3H	19.4	20.6	19.8	21.0	21.4	20.3	21.5	20.7	21.9	22.3
	4H	20.1	21.1	20.5	21.5	22.0	21.1	22.1	21.5	22.6	23.0
	6H	20.5	21.4	21.0	21.9	22.3	21.7	22.6	22.1	23.0	23.5
	8H	20.6	21.5	21.1	21.9	22.4	21.8	22.7	22.3	23.1	23.6
	12H	20.7	21.5	21.2	21.9	22.4	21.9	22.7	22.4	23.2	23.7
8H	4H	20.5	21.3	20.9	21.8	22.2	21.4	22.2	21.8	22.7	23.1
	6H	21.1	21.8	21.5	22.2	22.7	22.1	22.8	22.6	23.3	23.7
	8H	21.2	21.9	21.7	22.4	22.9	22.3	22.9	22.8	23.4	23.9
	12H	21.4	21.9	21.9	22.4	23.0	22.4	23.0	22.9	23.5	24.1
12H	4H	20.5	21.3	21.0	21.8	22.2	21.4	22.2	21.9	22.6	23.1
	6H	21.1	21.8	21.6	22.2	22.8	22.1	22.7	22.6	23.2	23.7
	8H	21.4	21.9	21.9	22.4	23.0	22.4	22.9	22.9	23.4	24.0

Maximum UGR = 24.1

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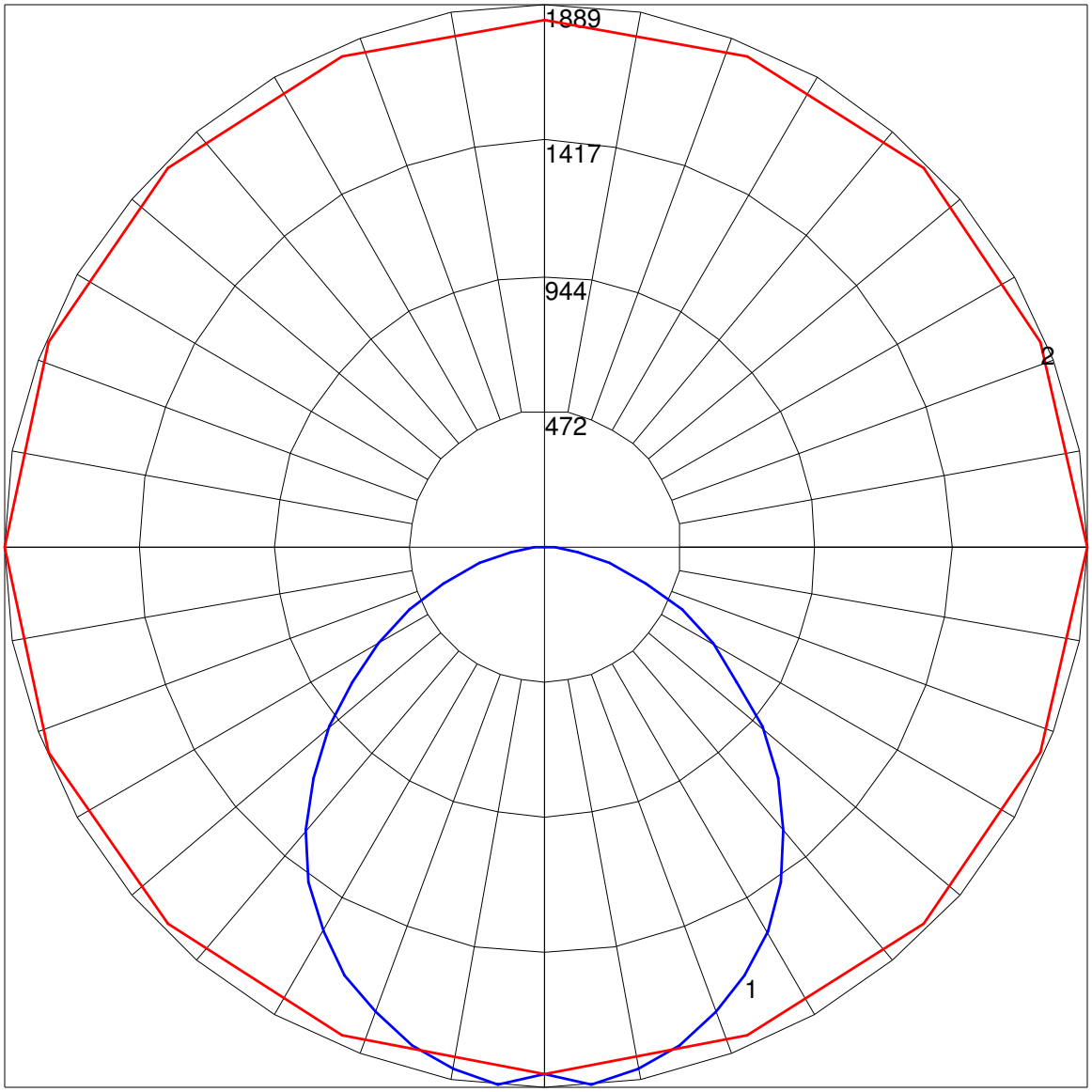
POLAR GRAPH



Maximum Candela = 1888.78 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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