H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : PT-14-L61-950-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-L61-950-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	5563
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	122
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	5206	5438	5517
55	4595	5049	5263
65	3999	4739	4862
75	2905	4070	4243
85	1324	2178	2563

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	2027.267	2027.267	2027.267	2027.267	2027.267
5	2073.052	2057.790	2050.159	2031.082	2019.636
10	2037.441	2025.995	2022.180	2001.831	1991.656
15	1981.482	1971.307	1976.394	1952.230	1952.230
20	1901.357	1897.542	1906.445	1883.552	1891.183
25	1812.331	1803.428	1821.233	1804.700	1799.613
30	1708.042	1691.509	1716.945	1708.042	1705.499
35	1577.046	1564.328	1597.395	1591.036	1598.666
40	1424.428	1421.885	1457.495	1462.583	1456.224
45	1257.821	1261.637	1313.781	1325.227	1332.858
50	1081.039	1100.117	1154.804	1182.784	1182.784
55	900.442	936.053	989.469	1044.157	1031.439
60	737.650	768.174	831.764	876.278	869.919
65	577.402	604.110	684.234	716.030	702.040
70	412.067	461.667	527.802	543.063	536.704
75	256.906	323.040	359.923	375.184	375.184
80	130.997	192.043	206.033	217.480	208.577
85	39.426	75.037	64.862	71.221	76.309
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	748.62	N.A.	13.50
0-30	1581.97	N.A.	28.40
0-40	2572.24	N.A.	46.20
0-60	4453.04	N.A.	80.00
0-80	5472.89	N.A.	98.40
0-90	5562.93	N.A.	100.00
10-90	5368.9	N.A.	96.50
20-40	1823.62	N.A.	32.80
20-50	2825.12	N.A.	50.80
40-70	2535.25	N.A.	45.60
60-80	1019.86	N.A.	18.30
70-80	365.40	N.A.	6.60
80-90	90.03	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	5562.93	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	194.03
10-20	554.60
20-30	833.35
30-40	990.27
40-50	1001.5
50-60	879.30
60-70	654.46
70-80	365.40
80-90	90.03
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	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	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	17.3	18.9	17.6	19.2	19.5	18.1	19.7	18.5	20.1	20.4
	3H	18.8	20.3	19.2	20.6	21.0	19.9	21.4	20.3	21.7	22.1
	4H	19.3	20.7	19.7	21.1	21.4	20.6	21.9	21.0	22.3	22.7
	6H	19.6	20.9	20.1	21.3	21.7	21.0	22.3	21.4	22.6	23.0
	8H	19.7	20.9	20.1	21.3	21.7	21.1	22.3	21.5	22.7	23.1
	12H	19.7	20.9	20.2	21.3	21.7	21.2	22.4	21.6	22.7	23.2
4H	2H	18.0	19.4	18.4	19.7	20.1	18.7	20.1	19.1	20.4	20.8
	3H	19.8	21.0	20.2	21.4	21.8	20.7	21.9	21.1	22.3	22.7
	4H	20.5	21.5	20.9	21.9	22.4	21.5	22.5	21.9	23.0	23.4
	6H	20.9	21.8	21.4	22.3	22.7	22.1	23.0	22.5	23.4	23.9
	8H	21.0	21.9	21.5	22.3	22.8	22.2	23.1	22.7	23.5	24.0
	12H	21.1	21.9	21.6	22.3	22.8	22.3	23.1	22.8	23.6	24.1
8H	4H	20.9	21.7	21.3	22.2	22.6	21.8	22.6	22.2	23.1	23.5
	6H	21.5	22.2	21.9	22.6	23.1	22.5	23.2	23.0	23.7	24.1
	8H	21.6	22.3	22.1	22.8	23.3	22.7	23.3	23.2	23.8	24.3
	12H	21.8	22.3	22.3	22.8	23.4	22.8	23.4	23.3	23.9	24.5
12H	4H	20.9	21.7	21.4	22.2	22.6	21.8	22.6	22.3	23.0	23.5
	6H	21.5	22.2	22.0	22.6	23.2	22.5	23.1	23.0	23.6	24.1
	8H	21.8	22.3	22.3	22.8	23.4	22.8	23.3	23.3	23.8	24.4

Maximum UGR = 24.5

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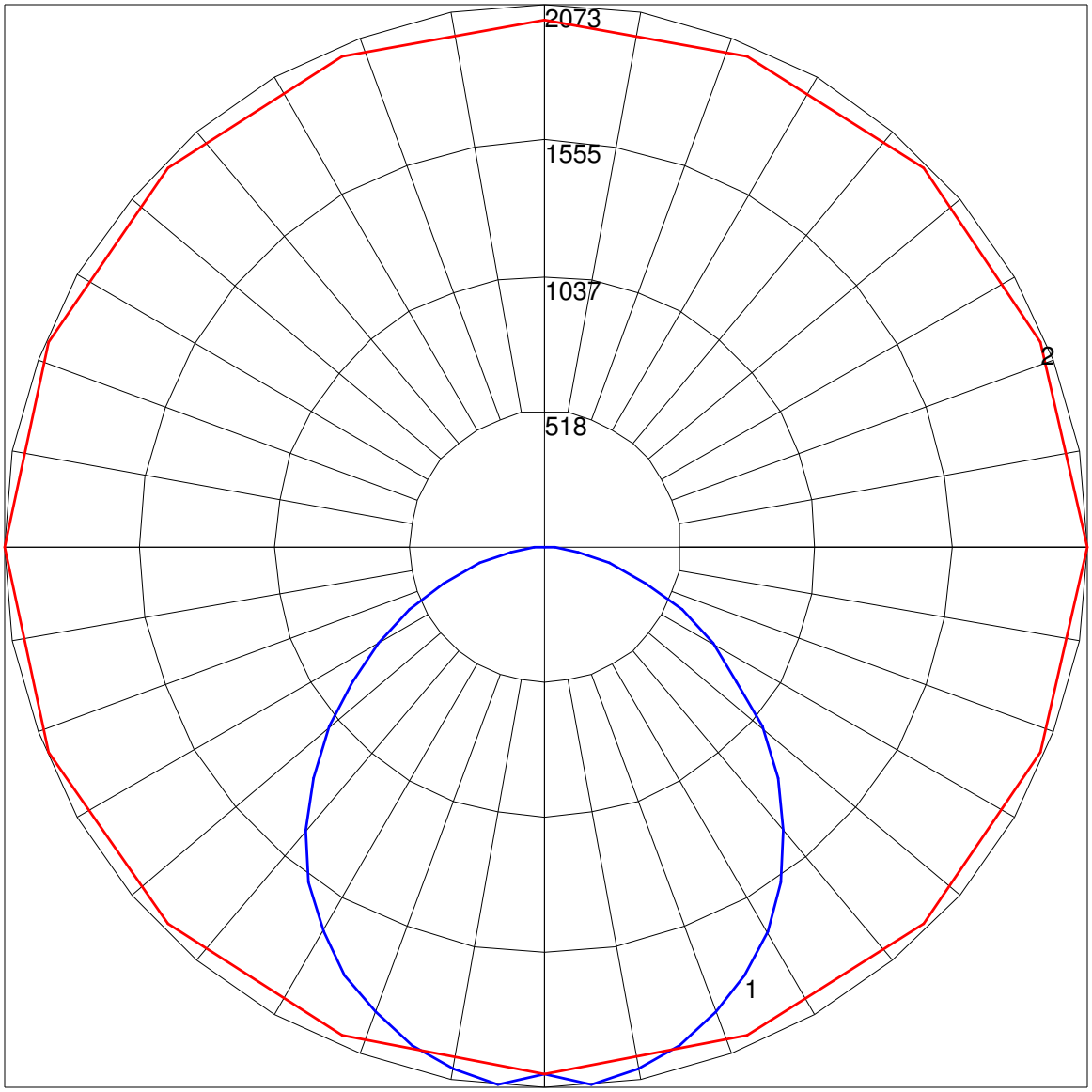
POLAR GRAPH



Maximum Candela = 2073.052 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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