H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : PT-14-L61-827-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-L61-827-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	5996
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	132
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	5611	5861	5946
55	4952	5442	5673
65	4310	5107	5240
75	3131	4387	4573
85	1427	2348	2762

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	2184.942	2184.942	2184.942	2184.942	2184.942
5	2234.288	2217.839	2209.615	2189.054	2176.718
10	2195.908	2183.571	2179.459	2157.527	2146.562
15	2135.596	2124.630	2130.113	2104.069	2104.069
20	2049.240	2045.128	2054.723	2030.050	2038.274
25	1953.289	1943.694	1962.884	1945.064	1939.581
30	1840.889	1823.070	1850.484	1840.889	1838.148
35	1699.704	1685.997	1721.636	1714.782	1723.006
40	1535.216	1532.475	1570.855	1576.338	1569.485
45	1355.651	1359.763	1415.963	1428.300	1436.524
50	1165.120	1185.681	1244.622	1274.778	1274.778
55	970.476	1008.857	1066.427	1125.368	1111.661
60	795.023	827.920	896.457	944.432	937.579
65	622.311	651.096	737.452	771.720	756.642
70	444.116	497.575	568.853	585.301	578.448
75	276.887	348.165	387.916	404.365	404.365
80	141.185	206.980	222.058	234.395	224.800
85	42.493	80.873	69.907	76.761	82.244
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	806.85	N.A.	13.50
0-30	1705.01	N.A.	28.40
0-40	2772.3	N.A.	46.20
0-60	4799.38	N.A.	80.00
0-80	5898.56	N.A.	98.40
0-90	5995.6	N.A.	100.00
10-90	5786.48	N.A.	96.50
20-40	1965.45	N.A.	32.80
20-50	3044.85	N.A.	50.80
40-70	2732.44	N.A.	45.60
60-80	1099.18	N.A.	18.30
70-80	393.82	N.A.	6.60
80-90	97.04	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	5995.6	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	209.12
10-20	597.73
20-30	898.16
30-40	1067.29
40-50	1079.39
50-60	947.69
60-70	705.36
70-80	393.82
80-90	97.04
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	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	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	17.5	19.1	17.8	19.4	19.7	18.3	19.9	18.7	20.3	20.6
	3H	19.0	20.5	19.4	20.8	21.2	20.1	21.6	20.5	21.9	22.3
	4H	19.5	20.9	19.9	21.3	21.6	20.8	22.1	21.2	22.5	22.9
	6H	19.8	21.1	20.3	21.5	21.9	21.2	22.5	21.6	22.8	23.2
	8H	19.9	21.1	20.3	21.5	21.9	21.3	22.5	21.7	22.9	23.3
	12H	19.9	21.1	20.4	21.5	21.9	21.4	22.6	21.8	22.9	23.4
4H	2H	18.2	19.6	18.6	19.9	20.3	18.9	20.3	19.3	20.6	21.0
	3H	20.0	21.2	20.4	21.6	22.0	20.9	22.1	21.3	22.5	22.9
	4H	20.7	21.7	21.1	22.1	22.6	21.7	22.7	22.1	23.2	23.6
	6H	21.1	22.0	21.6	22.5	22.9	22.3	23.2	22.7	23.6	24.1
	8H	21.2	22.1	21.7	22.5	23.0	22.4	23.3	22.9	23.7	24.2
	12H	21.3	22.1	21.8	22.5	23.0	22.5	23.3	23.0	23.8	24.3
8H	4H	21.1	21.9	21.5	22.4	22.8	22.0	22.8	22.4	23.3	23.7
	6H	21.7	22.4	22.1	22.8	23.3	22.7	23.4	23.2	23.9	24.3
	8H	21.8	22.5	22.3	23.0	23.5	22.9	23.5	23.4	24.0	24.5
	12H	22.0	22.5	22.5	23.0	23.6	23.0	23.6	23.5	24.1	24.7
12H	4H	21.1	21.9	21.6	22.4	22.8	22.0	22.8	22.5	23.2	23.7
	6H	21.7	22.4	22.2	22.8	23.4	22.7	23.3	23.2	23.8	24.3
	8H	22.0	22.5	22.5	23.0	23.6	23.0	23.5	23.5	24.0	24.6

Maximum UGR = 24.7

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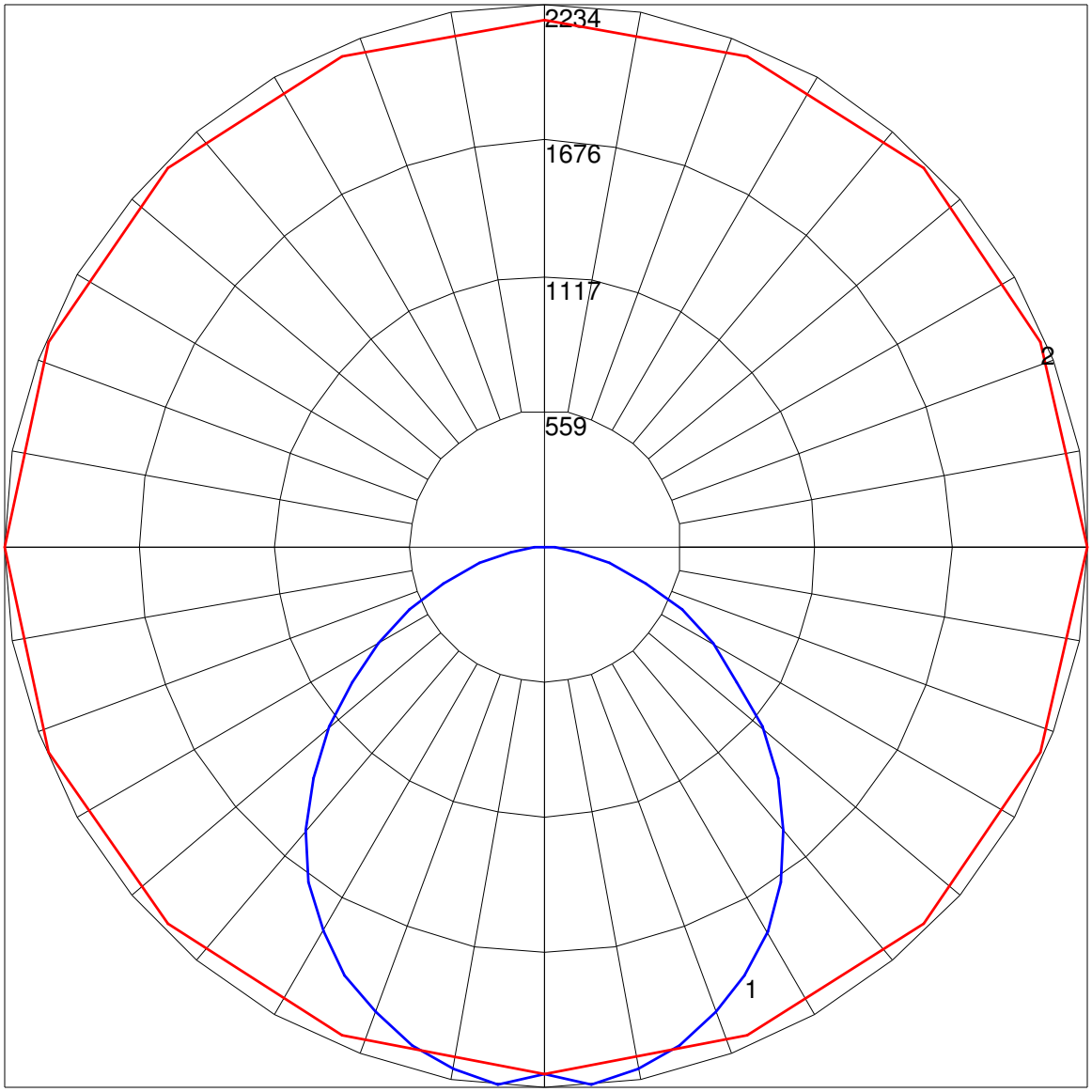
POLAR GRAPH



Maximum Candela = 2234.288 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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