H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : PT-24-L61-950-RA-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] GEN FROM BALLABS TEST NO. 19235.0
[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC
[ISSUEDATE] 2023-06-27
[MANUFAC] WILLIAMS INDOOR
[OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO
[LUMINAIRE] 2x4' RECESSED LED LUMINAIRE
[MORE] WHITE REFLECTOR w/RIBBED FROSTED ACRYLIC CENTER DIFFUSER
[MORE] 0-10V DRIVER
[LUMCAT] PT-24-L61-950-RA-DIM-UNV
[LAMPCAT] 22 INCH HLM 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)	1.14
Spacing Criterion (90-270)	1.18
Spacing Criterion (Diagonal)	1.28
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	3.92 ft
Luminous Width (90-270)	1.92 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	2386	2517	2646
55	2139	2341	2528
65	1879	2227	2530
75	1455	2234	2765
85	878	2931	3358

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	2128.244	2128.244	2128.244	2128.244	2128.244
5	2095.747	2092.858	2092.858	2085.636	2082.025
10	2089.247	2089.247	2092.858	2095.747	2095.747
15	2034.362	2037.251	2040.862	2045.917	2049.528
20	1900.038	1907.259	1915.926	1927.480	1931.091
25	1792.434	1798.933	1816.266	1831.431	1838.653
30	1570.727	1522.341	1720.217	1663.165	1654.499
35	1448.679	1462.401	1494.899	1522.341	1533.174
40	1289.079	1306.411	1342.520	1378.629	1392.350
45	1177.865	1193.030	1242.860	1289.079	1306.411
50	1023.319	1047.151	1102.036	1150.422	1167.032
55	856.497	882.496	937.381	992.266	1012.487
60	698.341	725.784	787.891	844.220	865.164
65	554.629	590.738	657.178	722.895	746.727
70	408.750	451.358	530.075	599.404	623.235
75	262.871	315.590	403.695	473.746	499.744
80	144.435	213.041	314.145	382.752	403.695
85	53.441	122.047	178.377	200.764	204.375
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	771.48	N.A.	13.90
0-30	1598.9	N.A.	28.70
0-40	2531.62	N.A.	45.50
0-60	4323.45	N.A.	77.70
0-80	5396.68	N.A.	97.00
0-90	5563.04	N.A.	100.00
10-90	5362.99	N.A.	96.40
20-40	1760.13	N.A.	31.60
20-50	2711.48	N.A.	48.70
40-70	2440.65	N.A.	43.90
60-80	1073.22	N.A.	19.30
70-80	424.41	N.A.	7.60
80-90	166.36	N.A.	3.00
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	5563.04	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	200.06
10-20	571.43
20-30	827.41
30-40	932.72
40-50	951.35
50-60	840.49
60-70	648.81
70-80	424.41
80-90	166.36
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	108	103	99	95	106	101	97	93	97	93	90	93	90	88	89	87	85	83
2	98	90	83	77	96	88	82	76	85	79	74	81	77	73	78	74	71	69
3	90	79	71	64	87	78	70	64	75	68	63	72	66	61	69	64	60	58
4	82	70	61	55	80	69	61	54	66	59	53	64	58	53	62	56	52	50
5	76	63	54	47	74	62	53	47	60	52	46	58	51	46	56	50	45	43
6	70	57	48	41	68	56	47	41	54	46	41	52	46	40	51	45	40	38
7	65	52	43	37	63	51	42	37	49	42	36	48	41	36	46	40	36	34
8	61	47	39	33	59	46	38	33	45	38	32	44	37	32	43	37	32	30
9	57	43	35	30	55	43	35	30	42	34	29	41	34	29	40	33	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	14.3	16.0	14.7	16.3	16.6	15.4	17.0	15.7	17.3	17.6
	3H	16.0	17.5	16.4	17.8	18.2	17.5	19.0	17.9	19.4	19.7
	4H	16.6	18.0	17.0	18.3	18.7	18.5	19.9	18.9	20.3	20.7
	6H	16.9	18.3	17.4	18.6	19.0	19.6	20.9	20.0	21.2	21.6
	8H	17.1	18.3	17.5	18.7	19.1	20.0	21.2	20.4	21.6	22.0
	12H	17.1	18.3	17.6	18.7	19.1	20.3	21.5	20.8	21.9	22.3
4H	2H	15.1	16.5	15.5	16.9	17.3	15.9	17.3	16.3	17.7	18.0
	3H	17.0	18.2	17.5	18.6	19.0	18.4	19.6	18.8	20.0	20.3
	4H	17.7	18.8	18.2	19.2	19.7	19.5	20.6	20.0	21.0	21.5
	6H	18.3	19.2	18.7	19.7	20.1	20.8	21.7	21.2	22.2	22.6
	8H	18.4	19.3	18.9	19.8	20.2	21.3	22.2	21.8	22.6	23.1
	12H	18.6	19.4	19.1	19.8	20.3	21.7	22.5	22.2	23.0	23.5
8H	4H	18.3	19.2	18.8	19.7	20.1	19.9	20.8	20.3	21.2	21.7
	6H	19.1	19.8	19.6	20.3	20.8	21.3	22.1	21.8	22.6	23.0
	8H	19.4	20.0	19.9	20.5	21.0	22.0	22.7	22.5	23.2	23.6
	12H	19.6	20.2	20.1	20.7	21.2	22.6	23.1	23.1	23.6	24.2
12H	4H	18.5	19.3	19.0	19.8	20.2	19.9	20.7	20.4	21.2	21.7
	6H	19.3	20.0	19.9	20.5	21.0	21.4	22.1	22.0	22.6	23.1
	8H	19.7	20.3	20.2	20.8	21.4	22.2	22.7	22.7	23.2	23.8

Maximum UGR = 24.2

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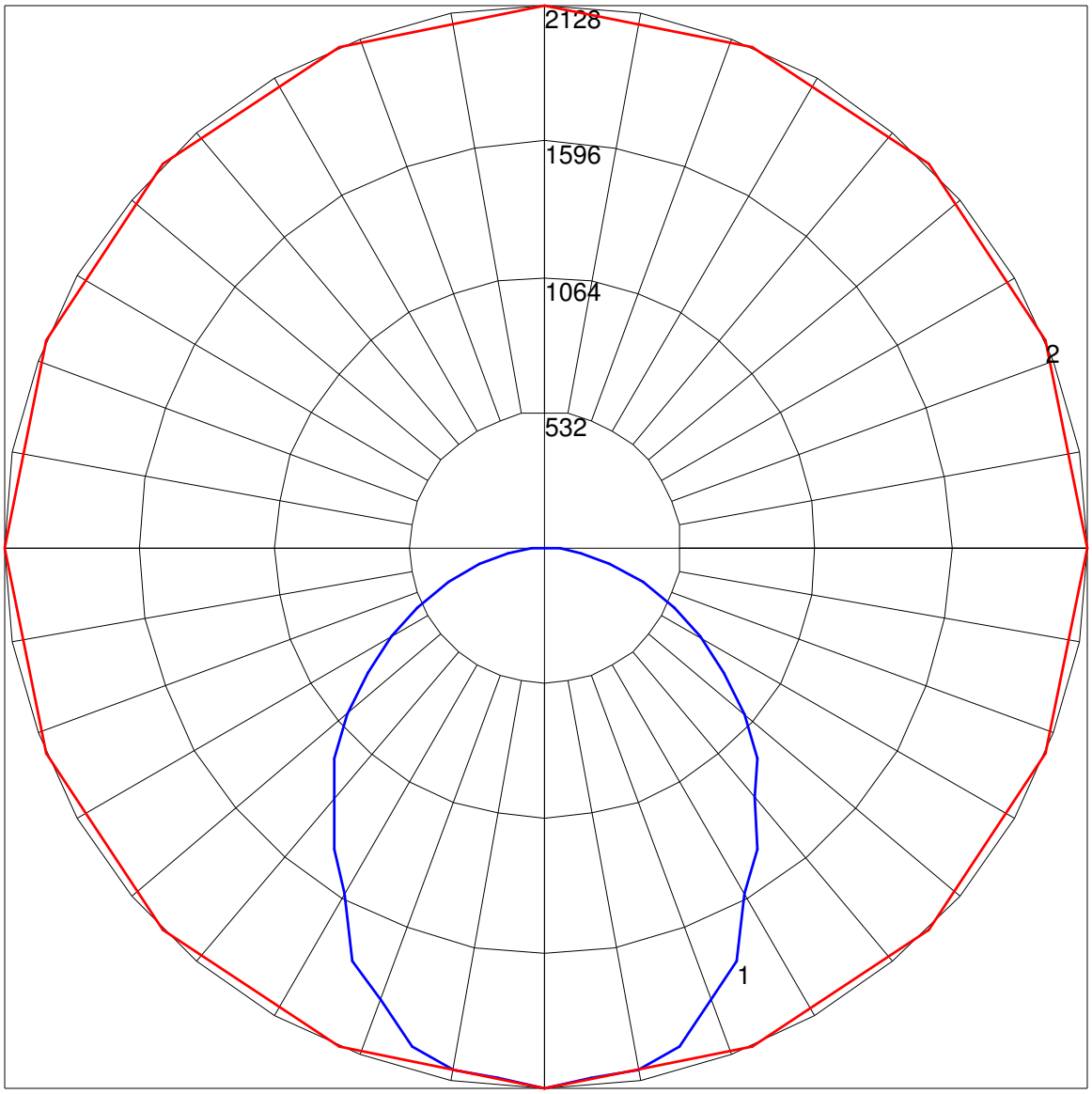
POLAR GRAPH



Maximum Candela = 2128.244 Located At Horizontal Angle = 0, Vertical Angle = 0
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (0) (Through Max. Cd.)

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