H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : PT-24-L49-850-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-L49-850-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	5383
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	147
Total Luminaire Watts	36.7
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	2308	2436	2560
55	2069	2265	2446
65	1819	2155	2448
75	1407	2161	2676
85	850	2836	3250

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	2059.296	2059.296	2059.296	2059.296	2059.296
5	2027.851	2025.056	2025.056	2018.068	2014.574
10	2021.562	2021.562	2025.056	2027.851	2027.851
15	1968.455	1971.250	1974.744	1979.635	1983.129
20	1838.482	1845.470	1853.856	1865.036	1868.530
25	1734.365	1740.654	1757.424	1772.099	1779.086
30	1519.840	1473.022	1664.487	1609.284	1600.898
35	1401.747	1415.024	1446.469	1473.022	1483.504
40	1247.317	1264.088	1299.027	1333.965	1347.242
45	1139.705	1154.380	1202.595	1247.317	1264.088
50	990.167	1013.227	1066.334	1113.152	1129.224
55	828.750	853.906	907.013	960.120	979.685
60	675.717	702.271	762.366	816.870	837.135
65	536.661	571.600	635.887	699.476	722.536
70	395.508	436.736	512.902	579.985	603.045
75	254.355	305.366	390.616	458.398	483.554
80	139.755	206.139	303.968	370.352	390.616
85	51.710	118.093	172.598	194.260	197.754
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	746.49	N.A.	13.90
0-30	1547.1	N.A.	28.70
0-40	2449.6	N.A.	45.50
0-60	4183.39	N.A.	77.70
0-80	5221.84	N.A.	97.00
0-90	5382.82	N.A.	100.00
10-90	5189.24	N.A.	96.40
20-40	1703.11	N.A.	31.60
20-50	2623.64	N.A.	48.70
40-70	2361.58	N.A.	43.90
60-80	1038.45	N.A.	19.30
70-80	410.66	N.A.	7.60
80-90	160.98	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	5382.82	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	193.57
10-20	552.92
20-30	800.61
30-40	902.50
40-50	920.53
50-60	813.26
60-70	627.79
70-80	410.66
80-90	160.98
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	14.2	15.8	14.5	16.1	16.4	15.2	16.8	15.5	17.1	17.4
	3H	15.8	17.3	16.2	17.6	18.0	17.3	18.8	17.7	19.2	19.5
	4H	16.4	17.8	16.8	18.1	18.5	18.3	19.7	18.7	20.1	20.5
	6H	16.7	18.1	17.2	18.4	18.8	19.4	20.7	19.8	21.0	21.4
	8H	16.9	18.1	17.3	18.5	18.9	19.8	21.0	20.2	21.4	21.8
	12H	16.9	18.1	17.4	18.5	18.9	20.1	21.3	20.6	21.7	22.1
4H	2H	14.9	16.3	15.3	16.7	17.1	15.7	17.1	16.1	17.5	17.8
	3H	16.8	18.0	17.3	18.4	18.8	18.2	19.4	18.6	19.8	20.2
	4H	17.5	18.6	18.0	19.0	19.5	19.3	20.4	19.8	20.8	21.3
	6H	18.1	19.0	18.5	19.5	19.9	20.6	21.5	21.0	22.0	22.4
	8H	18.2	19.1	18.7	19.6	20.0	21.1	22.0	21.6	22.4	22.9
	12H	18.4	19.2	18.9	19.6	20.1	21.5	22.3	22.0	22.8	23.3
8H	4H	18.1	19.0	18.6	19.5	19.9	19.7	20.6	20.1	21.0	21.5
	6H	18.9	19.6	19.4	20.1	20.6	21.1	21.9	21.6	22.4	22.8
	8H	19.2	19.8	19.7	20.3	20.8	21.8	22.5	22.3	23.0	23.4
	12H	19.4	20.0	19.9	20.5	21.0	22.4	22.9	22.9	23.4	24.0
12H	4H	18.3	19.1	18.8	19.6	20.0	19.7	20.5	20.2	21.0	21.5
	6H	19.1	19.8	19.7	20.3	20.8	21.2	21.9	21.8	22.4	22.9
	8H	19.5	20.1	20.0	20.6	21.2	22.0	22.5	22.5	23.0	23.6

Maximum UGR = 24.0

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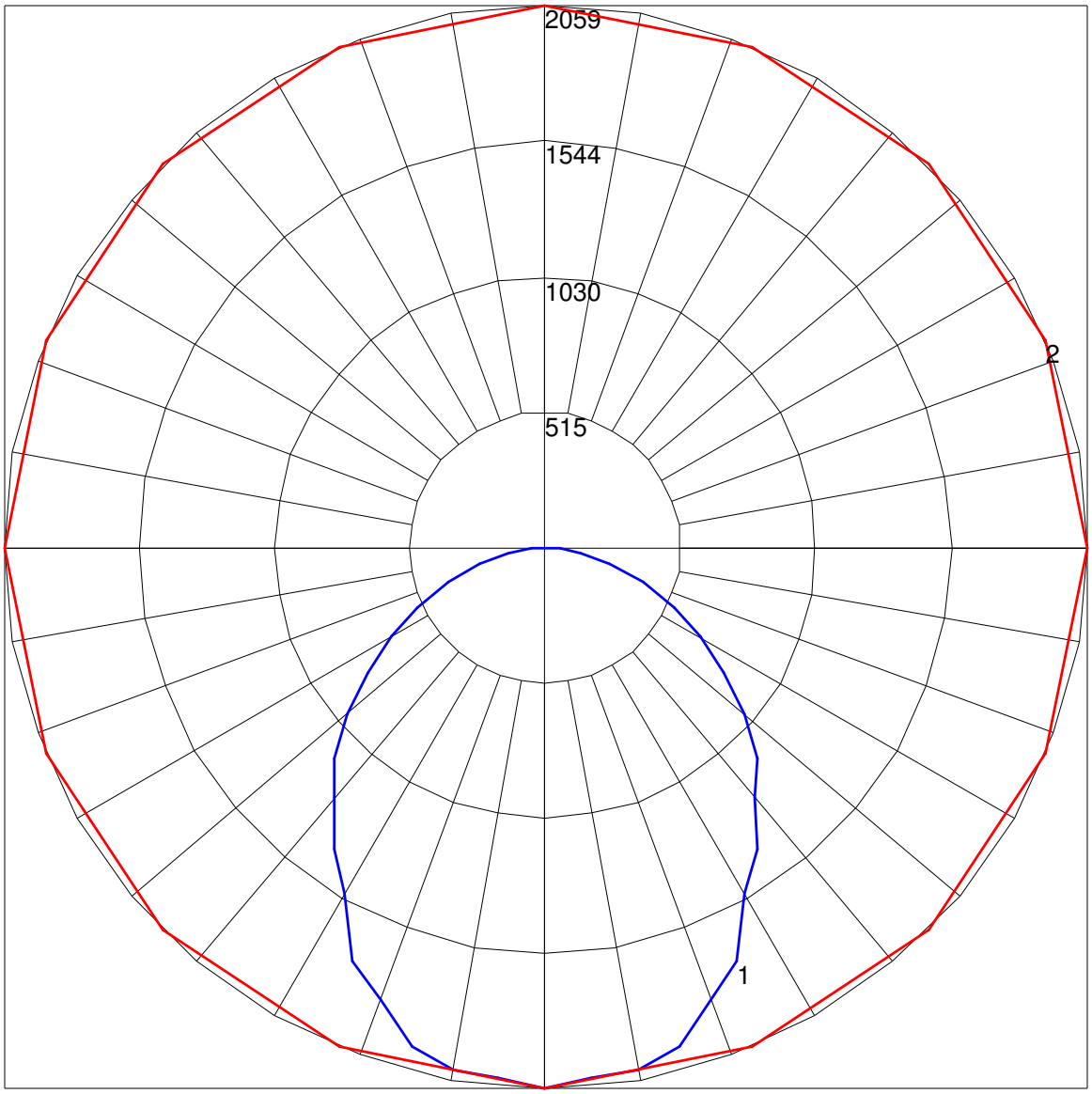
POLAR GRAPH



Maximum Candela = 2059.296 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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