H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : PT-24-P65-8TW-RA-(P43)-POE PR_.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] 11-11-2021
[MANUFAC] WILLIAMS INDOOR
[OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO
[LUMINAIRE] 2x4' RECESSED LED LUMINAIRE
[MORE] w/RIBBED FROSTED ACRYLIC CENTER DIFFUSER
[LUMCAT] PT-24-P65-8TW-RA-(P43)-POE PR
[LAMPCAT] HLM 80 CRI TUNABLE WHITE CCT
[_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	4441
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	176
Total Luminaire Watts	25.3
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	1904	2010	2112
55	1707	1868	2018
65	1500	1778	2020
75	1161	1783	2208
85	701	2340	2681

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	1699.030	1699.030	1699.030	1699.030	1699.030
5	1673.086	1670.780	1670.780	1665.015	1662.132
10	1667.897	1667.897	1670.780	1673.086	1673.086
15	1624.081	1626.387	1629.270	1633.306	1636.188
20	1516.847	1522.612	1529.530	1538.755	1541.637
25	1430.944	1436.133	1449.969	1462.077	1467.842
30	1253.950	1215.322	1373.291	1327.745	1320.827
35	1156.516	1167.470	1193.414	1215.322	1223.970
40	1029.104	1042.940	1071.767	1100.593	1111.547
45	940.318	952.425	992.206	1029.104	1042.940
50	816.941	835.966	879.783	918.410	931.670
55	683.763	704.518	748.334	792.150	808.293
60	557.503	579.411	628.993	673.962	690.681
65	442.774	471.600	524.641	577.105	596.131
70	326.315	360.330	423.172	478.519	497.544
75	209.856	251.943	322.279	378.203	398.958
80	115.306	170.076	250.790	305.560	322.279
85	42.663	97.433	142.403	160.275	163.158
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	615.90	N.A.	13.90
0-30	1276.44	N.A.	28.70
0-40	2021.05	N.A.	45.50
0-60	3451.52	N.A.	77.70
0-80	4308.3	N.A.	97.00
0-90	4441.11	N.A.	100.00
10-90	4281.4	N.A.	96.40
20-40	1405.16	N.A.	31.60
20-50	2164.64	N.A.	48.70
40-70	1948.43	N.A.	43.90
60-80	856.78	N.A.	19.30
70-80	338.82	N.A.	7.60
80-90	132.81	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	4441.11	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	159.71
10-20	456.19
20-30	660.54
30-40	744.61
40-50	759.48
50-60	670.98
60-70	517.96
70-80	338.82
80-90	132.81
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	13.5	15.2	13.9	15.5	15.8	14.6	16.2	14.9	16.5	16.8
	3H	15.2	16.7	15.6	17.0	17.4	16.7	18.2	17.1	18.6	18.9
	4H	15.8	17.2	16.2	17.5	17.9	17.7	19.1	18.1	19.5	19.9
	6H	16.1	17.5	16.6	17.8	18.2	18.8	20.1	19.2	20.4	20.8
	8H	16.3	17.5	16.7	17.9	18.3	19.2	20.4	19.6	20.8	21.2
	12H	16.3	17.5	16.8	17.9	18.3	19.5	20.7	20.0	21.1	21.5
4H	2H	14.3	15.7	14.7	16.1	16.5	15.1	16.5	15.5	16.9	17.2
	3H	16.2	17.4	16.7	17.8	18.2	17.6	18.8	18.0	19.1	19.5
	4H	16.9	18.0	17.4	18.4	18.9	18.7	19.8	19.2	20.2	20.7
	6H	17.5	18.4	17.9	18.9	19.3	20.0	20.9	20.4	21.4	21.8
	8H	17.6	18.5	18.1	19.0	19.4	20.5	21.4	21.0	21.8	22.3
	12H	17.8	18.6	18.3	19.0	19.5	20.9	21.7	21.4	22.2	22.7
8H	4H	17.5	18.4	18.0	18.9	19.3	19.1	20.0	19.5	20.4	20.9
	6H	18.3	19.0	18.8	19.5	20.0	20.5	21.3	21.0	21.8	22.2
	8H	18.6	19.2	19.1	19.7	20.2	21.2	21.9	21.7	22.4	22.8
	12H	18.8	19.4	19.3	19.9	20.4	21.8	22.3	22.3	22.8	23.4
12H	4H	17.7	18.5	18.2	19.0	19.4	19.1	19.9	19.6	20.4	20.9
	6H	18.5	19.2	19.1	19.7	20.2	20.6	21.3	21.2	21.8	22.3
	8H	18.9	19.5	19.4	20.0	20.6	21.4	21.9	21.9	22.4	23.0

Maximum UGR = 23.4

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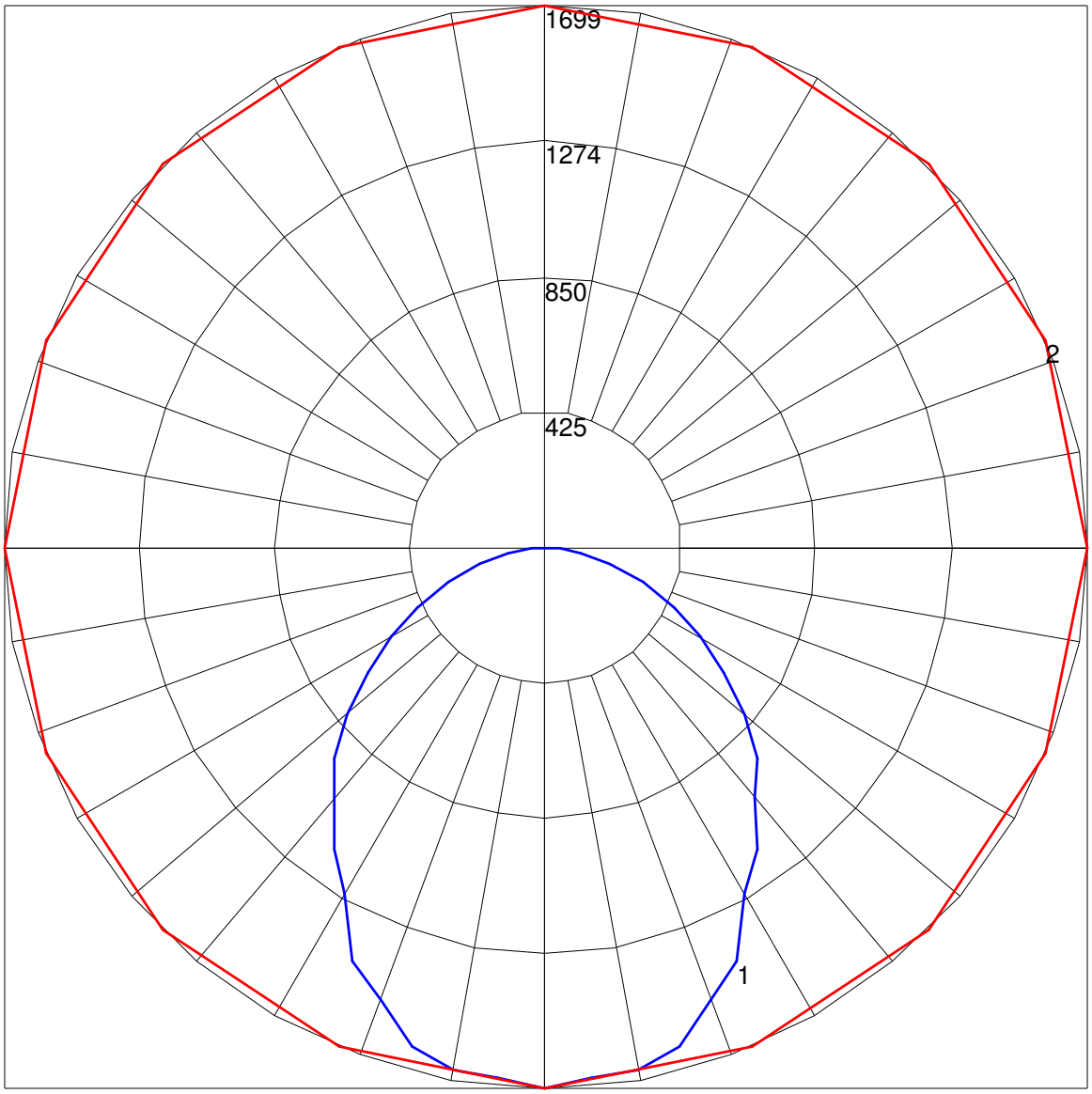
POLAR GRAPH



Maximum Candela = 1699.03 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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