



IES INDOOR REPORT

PHOTOMETRIC FILENAME : LT-24-P65-8TW-AF-(P40)-POE PR_4000K.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN FROM BALLABS TEST NO. 20168.0

[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC

[ISSUEDATE] 31-AUG-2023

[MANUFAC] WILLIAMS INDOOR

[OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO

[LUMINAIRE] 2-56 LED 22"ARRAYS 2x4'RECESSED LUMINAIRE

[MORE] WHITE REFLECTOR w/FROSTED ACRYLIC CENTER LENS

[LUMCAT] LT-24-P65-8TW-AF-(P40)-POE PR 4000K

[LAMPCAT] HLM TUNABLE WHITE CCT

[_SEARCH_SOURCETYPE] LED

[_SEARCH_APPLICATION] Indoor, Architectural, Classroom, Commercial, Office, Direct

[_SEARCH_MOUNTING] Recessed

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	4019
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	162
Total Luminaire Watts	24.8
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.24
Spacing Criterion (90-270)	1.30
Spacing Criterion (Diagonal)	1.38
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	1689	1791	1974
55	1550	1772	2055
65	1347	1800	2207
75	1063	1929	2602
85	550	2189	2308

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	<u>0.0</u>	<u>22.5</u>	<u>45.0</u>	<u>67.5</u>	<u>90.0</u>
0	1320.986	1320.986	1320.986	1320.986	1320.986
5	1328.264	1313.708	1310.069	1310.069	1310.069
10	1304.974	1291.873	1291.873	1294.785	1294.057
15	1267.855	1256.938	1261.305	1269.311	1271.495
20	1216.181	1211.814	1217.636	1233.648	1240.198
25	1155.772	1152.861	1163.050	1189.979	1197.985
30	1084.446	1086.629	1102.641	1139.760	1147.038
35	1010.936	1014.575	1033.499	1080.079	1096.091
40	925.782	933.060	961.445	1015.303	1039.321
45	834.077	850.089	884.296	939.610	974.546
50	729.272	758.384	796.959	859.551	901.764
55	620.827	660.129	709.621	778.035	823.160
60	509.471	553.140	620.099	695.792	738.005
65	397.388	446.151	531.306	613.549	651.395
70	291.854	341.346	438.873	530.578	566.241
75	192.143	246.002	348.624	442.512	470.169
80	99.711	160.120	256.191	330.428	325.334
85	33.480	77.876	133.190	172.492	140.468
90	0.000	0.000	0.000	0.000	0.000

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Zone	Lumens	%Lamp	%Fixt
0-20	481.54	N.A.	12.00
0-30	1021.35	N.A.	25.40
0-40	1675.7	N.A.	41.70
0-60	3006.94	N.A.	74.80
0-80	3889.85	N.A.	96.80
0-90	4019.19	N.A.	100.00
10-90	3894.41	N.A.	96.90
20-40	1194.16	N.A.	29.70
20-50	1883.92	N.A.	46.90
40-70	1855.35	N.A.	46.20
60-80	882.91	N.A.	22.00
70-80	358.80	N.A.	8.90
80-90	129.34	N.A.	3.20
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	4019.19	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	124.78
10-20	356.76
20-30	539.81
30-40	654.35
40-50	689.76
50-60	641.48
60-70	524.11
70-80	358.80
80-90	129.34
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	98	94	105	100	96	92	96	92	89	92	89	86	88	86	84	82
2	97	89	81	75	95	87	80	74	83	77	73	80	75	71	77	73	69	67
3	89	77	69	62	86	76	68	61	73	66	60	70	64	59	67	62	58	56
4	81	68	59	52	79	67	58	52	64	57	51	62	56	50	60	54	50	47
5	74	61	52	45	72	60	51	44	58	50	44	56	49	43	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	38	50	43	38	49	42	38	35
7	63	50	41	34	62	49	40	34	47	39	34	46	39	34	44	38	33	31
8	59	45	36	30	57	44	36	30	43	36	30	42	35	30	41	34	30	28
9	55	41	33	27	54	41	33	27	40	32	27	39	32	27	38	31	27	25
10	52	38	30	25	50	38	30	25	37	30	25	36	29	24	35	29	24	23

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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

X=2H	Y=2H	13.3	15.0	13.7	15.3	15.7	UGR Viewed Endwise			
	3H	15.0	16.5	15.3	16.8	17.2	14.9	16.6	15.2	16.9
	4H	15.5	17.0	15.9	17.3	17.7	17.4	18.9	17.8	19.3
	6H	15.9	17.2	16.3	17.6	18.0	18.6	20.0	19.0	20.4
	8H	16.0	17.3	16.4	17.7	18.1	19.6	20.9	20.0	21.3
	12H	16.0	17.3	16.5	17.7	18.1	19.9	21.2	20.4	21.6

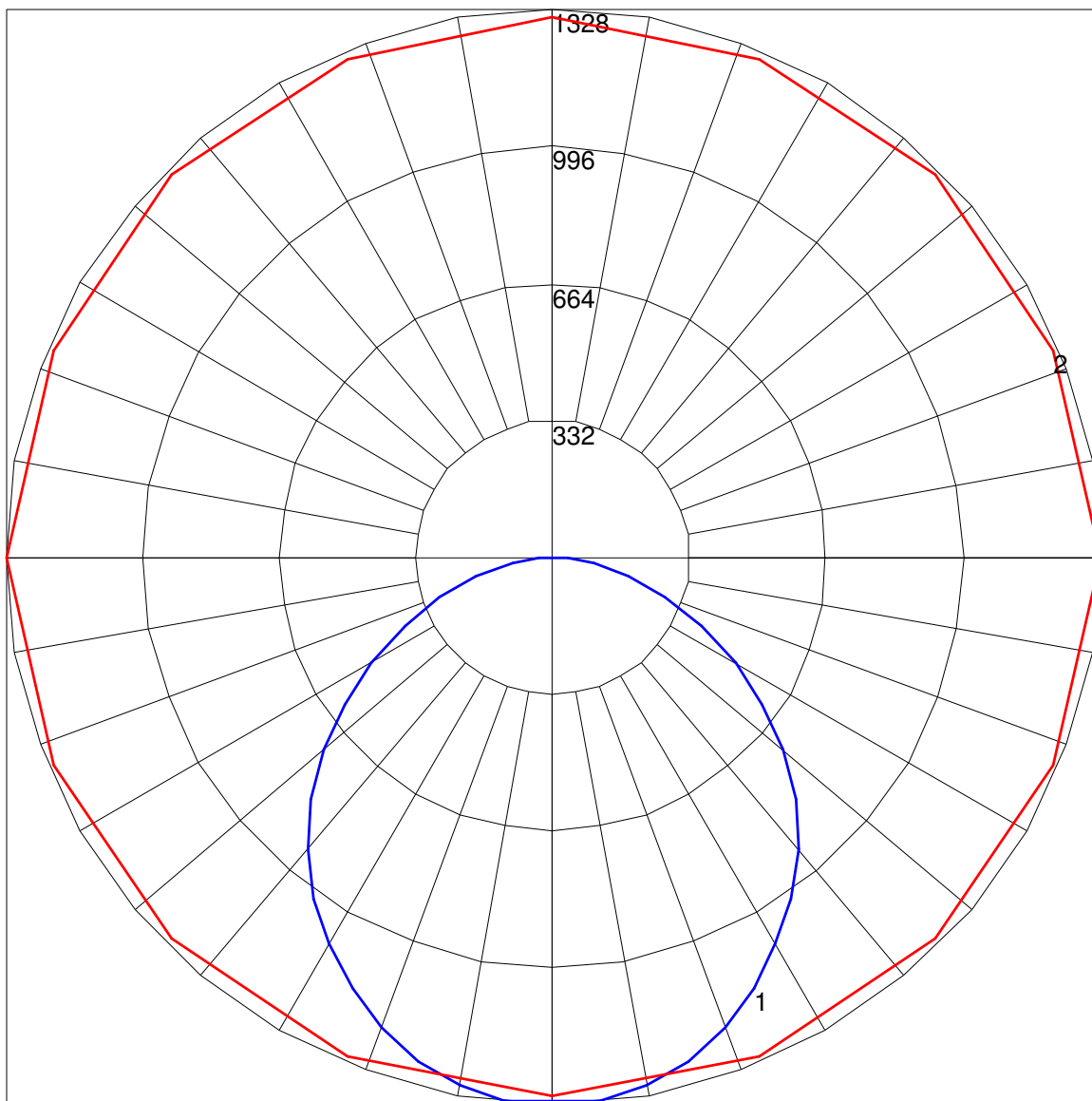
4H	2H	14.3	15.7	14.7	16.1	16.4	20.2	21.4	20.6	21.8
	3H	16.2	17.4	16.6	17.8	18.2	14.9	16.6	15.2	16.9
	4H	16.9	18.0	17.3	18.4	18.8	17.4	18.9	17.8	19.3
	6H	17.4	18.3	17.8	18.8	19.2	18.6	20.0	19.0	20.4
	8H	17.5	18.4	18.0	18.9	19.3	19.6	20.9	20.0	21.3
	12H	17.6	18.4	18.1	18.9	19.4	19.9	21.2	20.4	21.6

8H	4H	17.6	18.5	18.1	19.0	19.4	20.2	21.4	20.6	21.8
	6H	18.3	19.1	18.8	19.6	20.1	14.9	16.6	15.2	16.9
	8H	18.6	19.3	19.1	19.8	20.2	17.4	18.9	17.8	19.3
	12H	18.7	19.3	19.2	19.8	20.4	18.6	20.0	19.0	20.4

12H	4H	17.8	18.6	18.3	19.1	19.6	19.6	20.9	20.0	21.3
	6H	18.6	19.3	19.1	19.8	20.3	17.4	18.9	17.8	19.3
	8H	18.9	19.6	19.4	20.1	20.6	18.6	20.0	19.0	20.4

Maximum UGR = 24.1

POLAR GRAPH



Maximum Candela = 1328.264 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.)