



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : LT-24-P65-8TW-AF-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-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	6746
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	135
Total Luminaire Watts	50
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	2836	3006	3313
55	2602	2974	3450
65	2260	3022	3705
75	1785	3238	4367
85	923	3674	3874

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : LT-24-P65-8TW-AF-POE PR\_4000K.IES**

**CANDELA TABULATION**

	<u>0.0</u>	<u>22.5</u>	<u>45.0</u>	<u>67.5</u>	<u>90.0</u>
<b>0</b>	2217.311	2217.311	2217.311	2217.311	2217.311
<b>5</b>	2229.528	2205.094	2198.986	2198.986	2198.986
<b>10</b>	2190.434	2168.445	2168.445	2173.331	2172.110
<b>15</b>	2128.130	2109.805	2117.135	2130.573	2134.238
<b>20</b>	2041.392	2034.062	2043.835	2070.712	2081.707
<b>25</b>	1939.994	1935.108	1952.211	1997.412	2010.851
<b>30</b>	1820.272	1823.937	1850.813	1913.118	1925.334
<b>35</b>	1696.884	1702.993	1734.756	1812.942	1839.818
<b>40</b>	1553.950	1566.167	1613.811	1704.214	1744.529
<b>45</b>	1400.021	1426.898	1484.316	1577.162	1635.801
<b>50</b>	1224.102	1272.969	1337.717	1442.779	1513.635
<b>55</b>	1042.075	1108.045	1191.117	1305.953	1381.696
<b>60</b>	855.161	928.461	1040.853	1167.906	1238.762
<b>65</b>	667.026	748.877	891.811	1029.858	1093.385
<b>70</b>	489.885	572.958	736.660	890.589	950.451
<b>75</b>	322.518	412.921	585.175	742.769	789.192
<b>80</b>	167.367	268.765	430.024	554.633	546.082
<b>85</b>	56.196	130.718	223.564	289.533	235.780
<b>90</b>	0.000	0.000	0.000	0.000	0.000

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : LT-24-P65-8TW-AF-POE PR\_4000K.IES**

**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	808.28	N.A.	12.00
0-30	1714.37	N.A.	25.40
0-40	2812.71	N.A.	41.70
0-60	5047.24	N.A.	74.80
0-80	6529.22	N.A.	96.80
0-90	6746.32	N.A.	100.00
10-90	6536.87	N.A.	96.90
20-40	2004.43	N.A.	29.70
20-50	3162.22	N.A.	46.90
40-70	3114.26	N.A.	46.20
60-80	1481.99	N.A.	22.00
70-80	602.26	N.A.	8.90
80-90	217.09	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	6746.32	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	209.45
10-20	598.83
20-30	906.09
30-40	1098.34
40-50	1157.79
50-60	1076.74
60-70	879.73
70-80	602.26
80-90	217.09
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

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : LT-24-P65-8TW-AF-POE PR\_4000K.IES**

**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

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : LT-24-P65-8TW-AF-POE PR\_4000K.IES**

**UGR TABLE - CORRECTED**

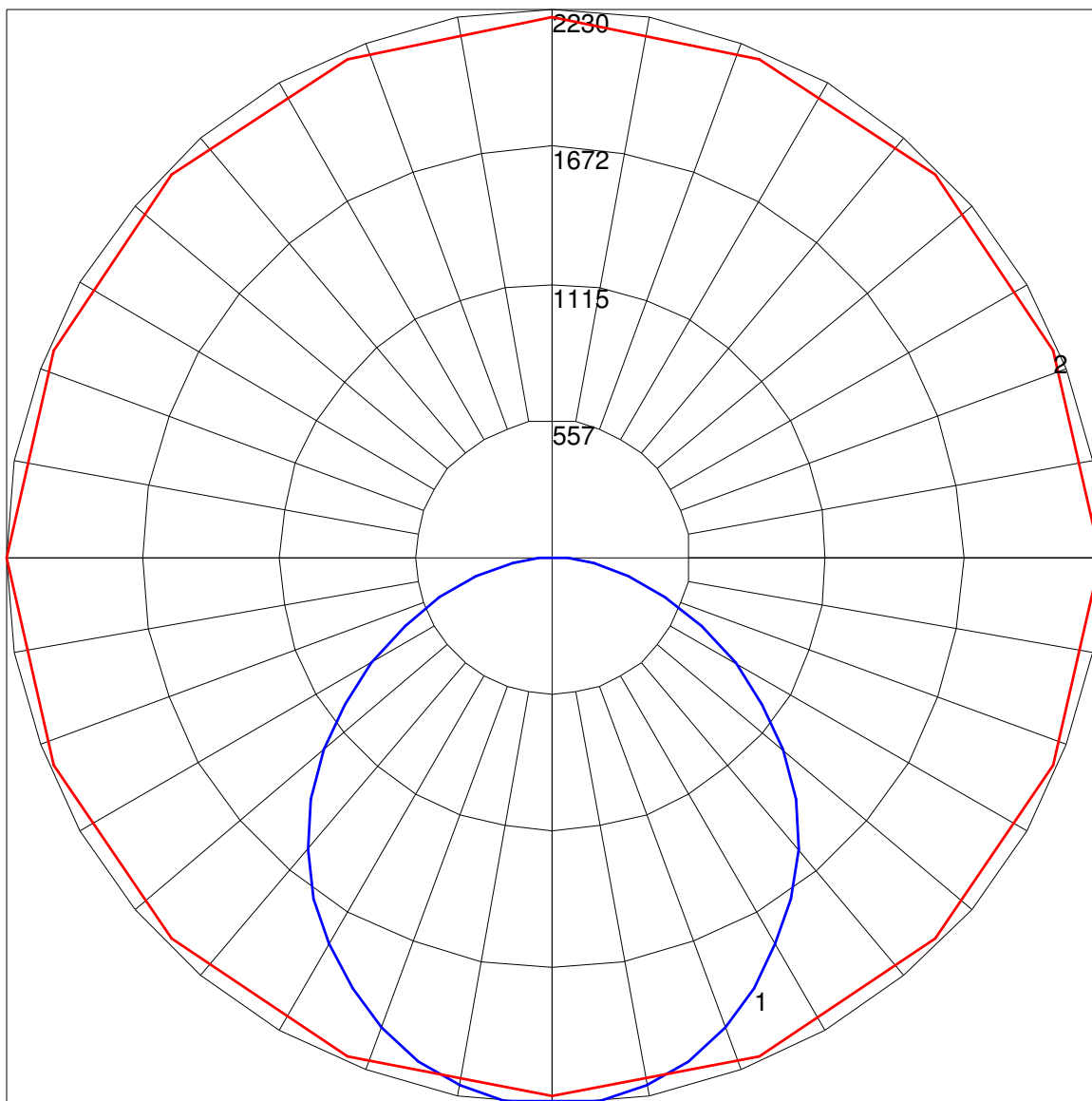
Reflectances

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	15.1	16.8	15.5	17.1	17.5	16.7	18.4	17.0	18.7	19.0
	3H	16.8	18.3	17.1	18.6	19.0	19.2	20.7	19.6	21.1	21.4
	4H	17.3	18.8	17.7	19.1	19.5	20.4	21.8	20.8	22.2	22.5
	6H	17.7	19.0	18.1	19.4	19.8	21.4	22.7	21.8	23.1	23.5
	8H	17.8	19.1	18.2	19.5	19.9	21.7	23.0	22.2	23.4	23.8
	12H	17.8	19.1	18.3	19.5	19.9	22.0	23.2	22.4	23.6	24.0
4H	2H	16.1	17.5	16.5	17.9	18.2	17.3	18.7	17.6	19.0	19.4
	3H	18.0	19.2	18.4	19.6	20.0	20.0	21.3	20.4	21.7	22.1
	4H	18.7	19.8	19.1	20.2	20.6	21.4	22.5	21.8	22.9	23.4
	6H	19.2	20.1	19.6	20.6	21.0	22.6	23.6	23.1	24.1	24.5
	8H	19.3	20.2	19.8	20.7	21.1	23.1	24.0	23.6	24.5	24.9
	12H	19.4	20.2	19.9	20.7	21.2	23.4	24.2	23.9	24.7	25.2
8H	4H	19.4	20.3	19.9	20.8	21.2	21.7	22.7	22.2	23.1	23.6
	6H	20.1	20.9	20.6	21.4	21.9	23.2	23.9	23.7	24.4	24.9
	8H	20.4	21.1	20.9	21.6	22.0	23.8	24.5	24.3	25.0	25.4
	12H	20.5	21.1	21.0	21.6	22.2	24.2	24.8	24.7	25.3	25.9
12H	4H	19.6	20.4	20.1	20.9	21.4	21.8	22.6	22.2	23.1	23.5
	6H	20.4	21.1	20.9	21.6	22.1	23.2	23.9	23.8	24.4	24.9
	8H	20.7	21.4	21.2	21.9	22.4	23.9	24.5	24.4	25.0	25.6

Maximum UGR = 25.9

POLAR GRAPH



Maximum Candela = 2229.528 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.)