



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : LT-24-P65-8TW-AF-(P48)-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] 15-DEC-2021

[MANUFAC] WILLIAMS INDOOR

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

[LUMINAIRE] 2x4' RECESSED LED LUMINAIRE

[MORE] WHITE REFLECTOR w/FROSTED ACRYLIC CENTER LENS

[LUMCAT] LT-24-P65-8TW-AF-(P48)-POE PR 4000K

[LAMPCAT] HLM 80 CRI 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	4887
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	175
Total Luminaire Watts	28
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	2054	2178	2400
55	1885	2155	2499
65	1637	2189	2684
75	1293	2346	3164
85	669	2661	2807

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : LT-24-P65-8TW-AF-(P48)-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>	1606.284	1606.284	1606.284	1606.284	1606.284
<b>5</b>	1615.134	1597.434	1593.009	1593.009	1593.009
<b>10</b>	1586.814	1570.884	1570.884	1574.424	1573.539
<b>15</b>	1541.679	1528.404	1533.714	1543.449	1546.104
<b>20</b>	1478.843	1473.533	1480.613	1500.083	1508.049
<b>25</b>	1405.388	1401.848	1414.238	1446.983	1456.718
<b>30</b>	1318.657	1321.312	1340.783	1385.918	1394.768
<b>35</b>	1229.272	1233.697	1256.707	1313.347	1332.818
<b>40</b>	1125.726	1134.576	1169.092	1234.582	1263.787
<b>45</b>	1014.216	1033.686	1075.281	1142.541	1185.022
<b>50</b>	886.775	922.175	969.080	1045.191	1096.521
<b>55</b>	754.909	802.700	862.880	946.070	1000.941
<b>60</b>	619.503	672.604	754.024	846.065	897.395
<b>65</b>	483.213	542.508	646.054	746.059	792.079
<b>70</b>	354.887	415.067	533.658	645.169	688.534
<b>75</b>	233.641	299.132	423.917	538.083	571.713
<b>80</b>	121.246	194.701	311.522	401.792	395.597
<b>85</b>	40.710	94.696	161.956	209.746	170.806
<b>90</b>	0.000	0.000	0.000	0.000	0.000

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : LT-24-P65-8TW-AF-(P48)-POE PR\_4000K.IES**

**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	585.54	N.A.	12.00
0-30	1241.94	N.A.	25.40
0-40	2037.61	N.A.	41.70
0-60	3656.36	N.A.	74.80
0-80	4729.96	N.A.	96.80
0-90	4887.23	N.A.	100.00
10-90	4735.5	N.A.	96.90
20-40	1452.06	N.A.	29.70
20-50	2290.8	N.A.	46.90
40-70	2256.06	N.A.	46.20
60-80	1073.59	N.A.	22.00
70-80	436.29	N.A.	8.90
80-90	157.27	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	4887.23	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	151.73
10-20	433.81
20-30	656.39
30-40	795.67
40-50	838.73
50-60	780.02
60-70	637.30
70-80	436.29
80-90	157.27
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-(P48)-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-(P48)-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

X=2H	Y=2H	14.0	15.7	14.4	16.0	16.4	15.6	17.3	15.9	17.6	17.9
	3H	15.6	17.2	16.0	17.5	17.9	18.1	19.6	18.5	20.0	20.3
	4H	16.2	17.7	16.6	18.0	18.4	19.3	20.7	19.7	21.1	21.4
	6H	16.6	17.9	17.0	18.3	18.7	20.3	21.6	20.7	22.0	22.4
	8H	16.7	18.0	17.1	18.4	18.8	20.6	21.9	21.1	22.3	22.7
	12H	16.7	18.0	17.2	18.4	18.8	20.9	22.1	21.3	22.5	22.9

### UGR Viewed Endwise

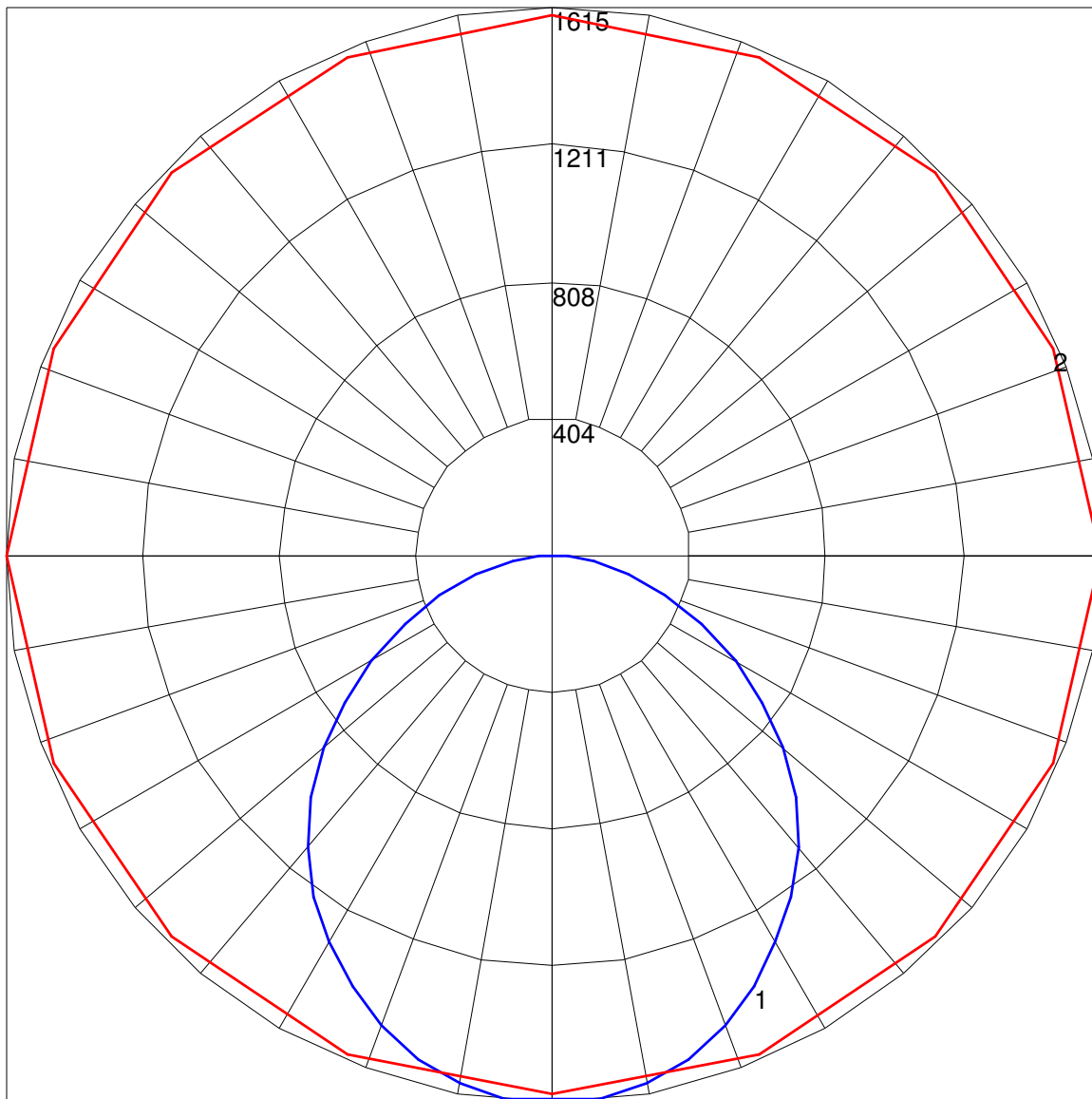
4H	2H	15.0	16.4	15.4	16.8	17.1	16.2	17.6	16.5	17.9	18.3
	3H	16.9	18.1	17.3	18.5	18.9	18.9	20.2	19.3	20.6	21.0
	4H	17.6	18.7	18.0	19.1	19.5	20.3	21.4	20.7	21.8	22.3
	6H	18.1	19.0	18.5	19.5	19.9	21.5	22.5	22.0	23.0	23.4
	8H	18.2	19.1	18.7	19.6	20.0	22.0	22.9	22.5	23.4	23.8
	12H	18.3	19.1	18.8	19.6	20.1	22.3	23.1	22.8	23.6	24.1

8H	4H	18.3	19.2	18.8	19.7	20.1	20.6	21.6	21.1	22.0	22.5
	6H	19.0	19.8	19.5	20.3	20.8	22.1	22.8	22.6	23.3	23.8
	8H	19.3	20.0	19.8	20.5	20.9	22.7	23.4	23.2	23.9	24.3
	12H	19.4	20.0	19.9	20.5	21.1	23.1	23.7	23.6	24.2	24.8

12H	4H	18.5	19.3	19.0	19.8	20.3	20.7	21.5	21.1	22.0	22.4
	6H	19.3	20.0	19.8	20.5	21.0	22.1	22.8	22.7	23.3	23.8
	8H	19.6	20.3	20.1	20.8	21.3	22.8	23.4	23.3	23.9	24.5

Maximum UGR = 24.8

POLAR GRAPH



Maximum Candela = 1615.134 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.)