



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : PTS-24-L56-B35T-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

[ISSUE DATE] 3-MAY-2021

[MANUFAC] WILLIAMS INDOOR

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

[LUMINAIRE] 2x4 SURFACE LED LUMINAIRE

[MORE] WHITE REFLECTOR w/RIBBED FROSTED ACRYLIC CENTER DIFFUSER

[LUMCAT] PTS-24-L56-B35T-RA-DIM-UNV

[LAMPCAT] BIOS LED MODULES

[\_SEARCH\_SOURCE TYPE] LED

[\_SEARCH\_APPLICATION] Indoor, Architectural, Office, Direct

[\_SEARCH\_MOUNTING] Surface

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	5667
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	127
Total Luminaire Watts	44.74
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	2430	2564	2695
55	2179	2384	2575
65	1915	2269	2578
75	1482	2276	2817
85	895	2986	3421

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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>	2168.071	2168.071	2168.071	2168.071	2168.071
<b>5</b>	2134.965	2132.022	2132.022	2124.665	2120.987
<b>10</b>	2128.343	2128.343	2132.022	2134.965	2134.965
<b>15</b>	2072.431	2075.374	2079.052	2084.202	2087.881
<b>20</b>	1935.593	1942.950	1951.778	1963.549	1967.228
<b>25</b>	1825.976	1832.597	1850.254	1865.703	1873.060
<b>30</b>	1600.120	1550.829	1752.407	1694.288	1685.460
<b>35</b>	1475.789	1489.767	1522.873	1550.829	1561.864
<b>40</b>	1313.202	1330.858	1367.643	1404.427	1418.405
<b>45</b>	1199.906	1215.355	1266.118	1313.202	1330.858
<b>50</b>	1042.469	1066.747	1122.659	1171.950	1188.871
<b>55</b>	872.525	899.010	954.922	1010.834	1031.434
<b>60</b>	711.410	739.366	802.635	860.018	881.353
<b>65</b>	565.008	601.792	669.475	736.423	760.701
<b>70</b>	416.399	459.805	539.994	610.620	634.898
<b>75</b>	267.790	321.495	411.249	482.611	509.096
<b>80</b>	147.137	217.028	320.024	389.914	411.249
<b>85</b>	54.441	124.331	181.715	204.521	208.200
<b>90</b>	0.000	0.000	0.000	0.000	0.000

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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	785.92	N.A.	13.90
0-30	1628.82	N.A.	28.70
0-40	2578.99	N.A.	45.50
0-60	4404.36	N.A.	77.70
0-80	5497.67	N.A.	97.00
0-90	5667.14	N.A.	100.00
10-90	5463.34	N.A.	96.40
20-40	1793.07	N.A.	31.60
20-50	2762.22	N.A.	48.70
40-70	2486.32	N.A.	43.90
60-80	1093.31	N.A.	19.30
70-80	432.35	N.A.	7.60
80-90	169.48	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	5667.14	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	203.80
10-20	582.12
20-30	842.90
30-40	950.17
40-50	969.15
50-60	856.22
60-70	660.95
70-80	432.35
80-90	169.48
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	138	138	138	138	134	134	134	134	128	128	128	123	123	123	118	118	118	116
1	125	119	114	110	122	117	112	108	112	108	104	107	104	101	103	101	98	96
2	114	104	96	89	111	102	94	88	98	92	86	94	89	84	90	86	82	80
3	104	92	82	74	101	90	81	74	86	79	72	83	77	71	80	75	70	67
4	95	81	71	63	93	80	70	63	77	68	62	74	67	61	72	65	60	58
5	88	73	62	55	85	71	62	54	69	60	54	67	59	53	65	58	52	50
6	81	66	55	48	79	65	55	48	62	54	47	60	53	47	59	52	46	44
7	75	60	49	42	73	59	49	42	57	48	42	55	47	42	54	47	41	39
8	70	55	45	38	68	54	44	38	52	44	38	51	43	37	49	42	37	35
9	66	50	41	34	64	49	40	34	48	40	34	47	39	34	46	39	34	31
10	62	46	37	31	60	46	37	31	45	37	31	44	36	31	42	36	31	29

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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	13.8	15.5	14.2	15.8	16.1	14.9	16.5	15.2	16.8	17.1
	3H	15.5	17.0	15.9	17.3	17.7	17.0	18.5	17.4	18.9	19.2
	4H	16.1	17.5	16.5	17.8	18.2	18.0	19.4	18.4	19.8	20.2
	6H	16.4	17.8	16.9	18.1	18.5	19.1	20.4	19.5	20.7	21.1
	8H	16.6	17.8	17.0	18.2	18.6	19.5	20.7	19.9	21.1	21.5
	12H	16.6	17.8	17.1	18.2	18.6	19.8	21.0	20.3	21.4	21.8

UGR Viewed Endwise

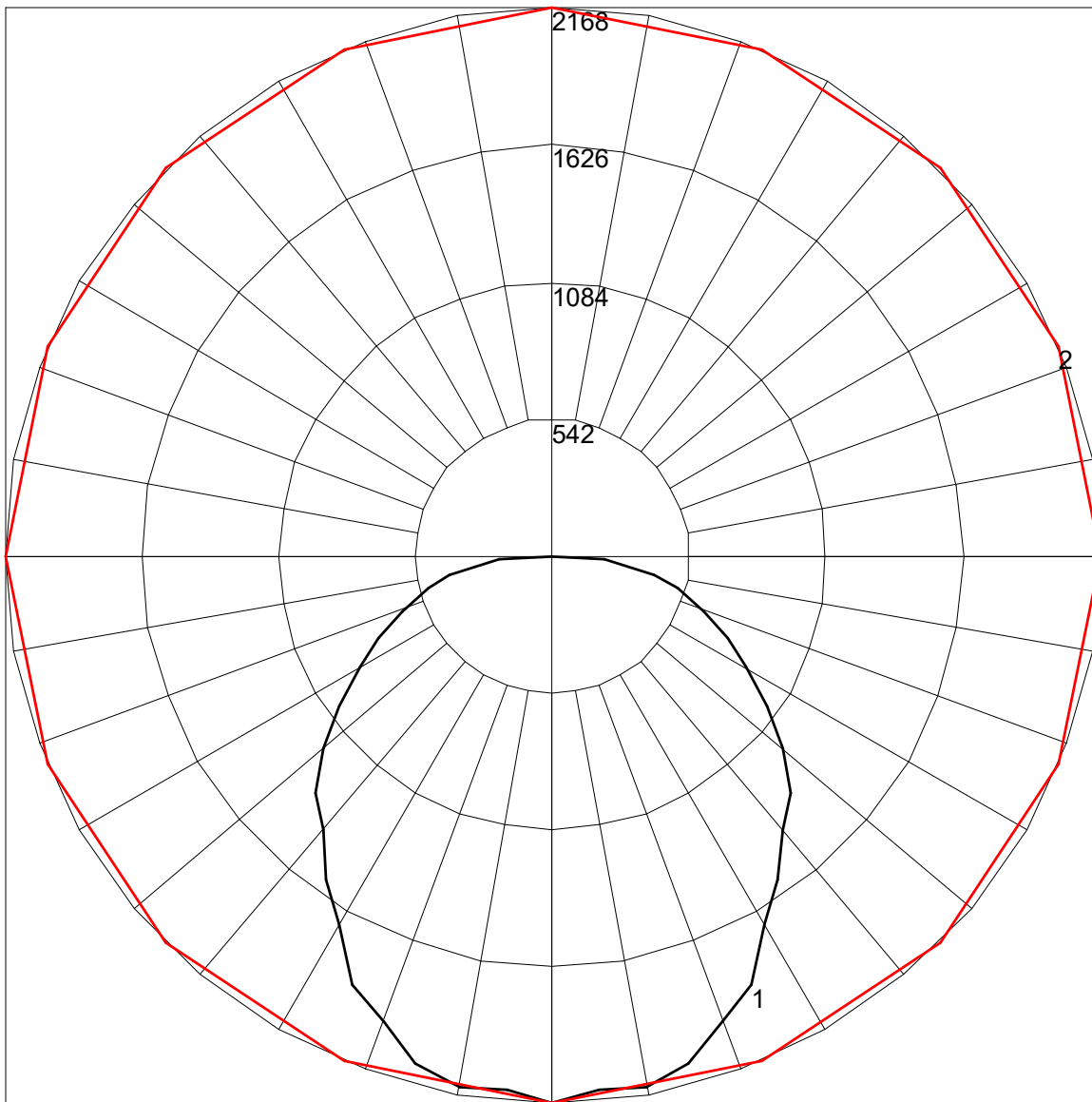
4H	2H	14.6	16.0	15.0	16.4	16.8	15.4	16.8	15.8	17.2	17.5
	3H	16.5	17.7	17.0	18.1	18.5	17.9	19.1	18.3	19.4	19.8
	4H	17.2	18.3	17.7	18.7	19.2	19.0	20.1	19.5	20.5	21.0
	6H	17.8	18.7	18.2	19.2	19.6	20.3	21.2	20.7	21.7	22.1
	8H	17.9	18.8	18.4	19.3	19.7	20.8	21.7	21.3	22.1	22.6
	12H	18.1	18.9	18.6	19.3	19.8	21.2	22.0	21.7	22.5	23.0

8H	4H	17.8	18.7	18.3	19.2	19.6	19.4	20.3	19.8	20.7	21.2
	6H	18.6	19.3	19.1	19.8	20.3	20.8	21.6	21.3	22.1	22.5
	8H	18.9	19.5	19.4	20.0	20.5	21.5	22.2	22.0	22.7	23.1
	12H	19.1	19.7	19.6	20.2	20.7	22.1	22.6	22.6	23.1	23.7

12H	4H	18.0	18.8	18.5	19.3	19.7	19.4	20.2	19.9	20.7	21.2
	6H	18.8	19.5	19.4	20.0	20.5	20.9	21.6	21.5	22.1	22.6
	8H	19.2	19.8	19.7	20.3	20.9	21.7	22.2	22.2	22.7	23.3

Maximum UGR = 23.7

POLAR GRAPH



Maximum Candela = 2168.071 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)  
# 2 - Horizontal Cone Through Vertical Angle (0) (Through Max. Cd.)