



IES INDOOR REPORT

PHOTOMETRIC FILENAME : PTS-24-L49-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] 26-APR-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-L49-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	4901
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	130
Total Luminaire Watts	37.8
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	2102	2218	2331
55	1884	2062	2227
65	1656	1962	2229
75	1281	1968	2436
85	774	2582	2959

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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>
0	1875.016	1875.016	1875.016	1875.016	1875.016
5	1846.385	1843.840	1843.840	1837.477	1834.296
10	1840.659	1840.659	1843.840	1846.385	1846.385
15	1792.304	1794.849	1798.030	1802.484	1805.665
20	1673.962	1680.325	1687.960	1698.140	1701.321
25	1579.162	1584.888	1600.158	1613.519	1619.881
30	1383.834	1341.206	1515.537	1465.274	1457.639
35	1276.309	1288.397	1317.028	1341.206	1350.749
40	1135.698	1150.968	1182.781	1214.593	1226.682
45	1037.717	1051.078	1094.979	1135.698	1150.968
50	901.560	922.556	970.911	1013.539	1028.173
55	754.587	777.492	825.847	874.201	892.016
60	615.250	639.427	694.144	743.771	762.222
65	488.637	520.449	578.984	636.882	657.878
70	360.115	397.654	467.004	528.084	549.080
75	231.593	278.039	355.661	417.377	440.282
80	127.249	187.692	276.767	337.210	355.661
85	47.082	107.526	157.153	176.876	180.058
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	679.69	N.A.	13.90
0-30	1408.65	N.A.	28.70
0-40	2230.39	N.A.	45.50
0-60	3809.03	N.A.	77.70
0-80	4754.55	N.A.	97.00
0-90	4901.12	N.A.	100.00
10-90	4724.87	N.A.	96.40
20-40	1550.7	N.A.	31.60
20-50	2388.85	N.A.	48.70
40-70	2150.25	N.A.	43.90
60-80	945.53	N.A.	19.30
70-80	373.91	N.A.	7.60
80-90	146.57	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	4901.12	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	176.25
10-20	503.44
20-30	728.96
30-40	821.74
40-50	838.15
50-60	740.48
60-70	571.61
70-80	373.91
80-90	146.57
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

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

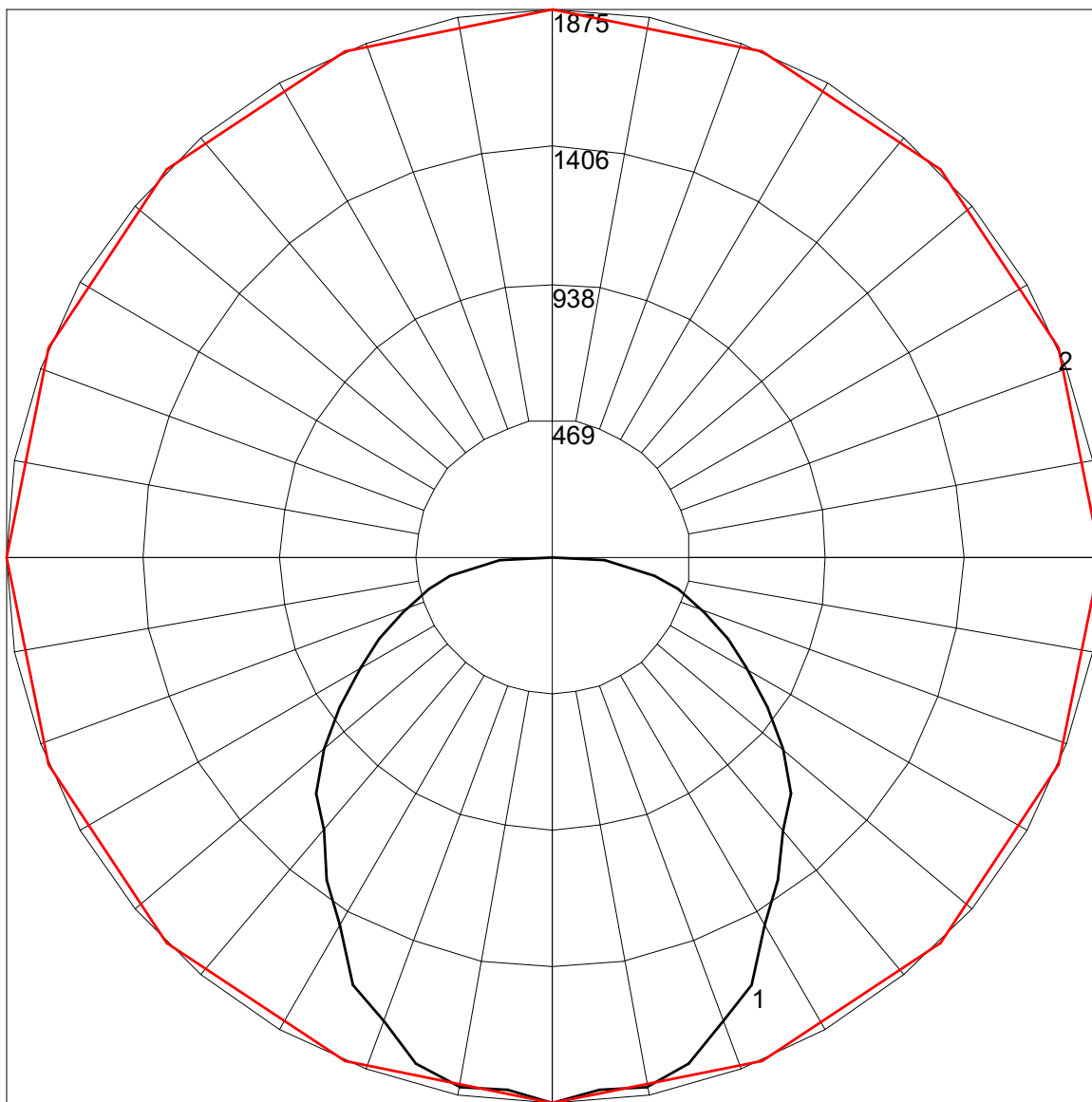
4H	2H	14.6	16.0	15.0	16.4	16.8	15.4	16.8	15.8	17.2	17.5
	3H	16.5	17.7	17.0	18.1	18.5	17.9	19.1	18.3	19.4	19.8
	4H	17.2	18.3	17.7	18.7	19.2	19.0	20.1	19.5	20.5	21.0
	6H	17.8	18.7	18.2	19.2	19.6	20.3	21.2	20.7	21.7	22.1
	8H	17.9	18.8	18.4	19.3	19.7	20.8	21.7	21.3	22.1	22.6
	12H	18.1	18.9	18.6	19.3	19.8	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 = 1875.016 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.)