

IES INDOOR REPORT

PHOTOMETRIC FILENAME : PTDC-22-L26-840-RA-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] BALLABS TEST NO. 19562.0
[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC
[ISSUE DATE] 2022-05-03
[MANUFAC] WILLIAMS INDOOR
[OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO
[LUMINAIRE] 1-72 LED 22"ARRAY 2x2'RECESSED LUMINAIRE
[MORE] WHITE REFLECTOR w/CENTER FROSTED RIBBED ACRYLIC LENS
[MORE] ELECTRONIC 0-10V LED DRIVER
[LUMCAT] PTDC-22-L26-840-RA-DIM-UNV
[LAMPCAT] HLM 80 CRI 4000K CCT
[SEARCH_SOURCETYPE] LED
[SEARCH_APPLICATION] INDOOR
[SEARCH_MOUNTING] RECESSED

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	2712
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	127
Total Luminaire Watts	21.3
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.24
Spacing Criterion (90-270)	1.24
Spacing Criterion (Diagonal)	1.34
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	1.92 ft
Luminous Width (90-270)	1.93 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	2548	2643	2729
55	2154	2374	2533
65	1647	2060	2290
75	1145	1827	2258
85	652	1490	1862

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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	1036.425	1036.425	1036.425	1036.425	1036.425
5	1039.910	1033.637	1032.243	1028.758	1028.758
10	1025.970	1019.697	1019.000	1015.515	1014.818
15	1001.575	994.605	993.908	992.514	991.817
20	966.726	960.453	959.756	960.453	960.453
25	917.936	911.664	915.846	918.633	915.846
30	857.995	855.207	859.389	864.268	860.783
35	788.993	788.296	797.357	800.842	804.327
40	709.536	709.536	724.870	731.143	736.719
45	618.928	618.928	641.928	656.565	662.838
50	523.440	524.137	554.804	574.320	583.381
55	424.467	432.134	467.681	488.590	499.045
60	327.586	342.919	378.466	401.467	412.618
65	239.068	259.280	299.009	324.101	332.464
70	161.005	186.096	225.825	251.614	261.371
75	101.761	126.155	162.399	188.187	200.733
80	55.062	75.972	108.034	126.155	138.701
85	19.516	34.153	44.607	44.607	55.759
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	378.67	N.A.	14.00
0-30	800.18	N.A.	29.50
0-40	1297.21	N.A.	47.80
0-60	2203.76	N.A.	81.30
0-80	2662.24	N.A.	98.20
0-90	2711.85	N.A.	100.00
10-90	2613.76	N.A.	96.40
20-40	918.53	N.A.	33.90
20-50	1411.38	N.A.	52.00
40-70	1197.6	N.A.	44.20
60-80	458.48	N.A.	16.90
70-80	167.43	N.A.	6.20
80-90	49.61	N.A.	1.80
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	2711.85	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	98.10
10-20	280.57
20-30	421.51
30-40	497.02
40-50	492.85
50-60	413.71
60-70	291.05
70-80	167.43
80-90	49.61
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	109	104	100	97	106	102	98	95	98	95	92	94	91	89	90	88	86	84
2	100	91	85	79	97	90	83	78	86	81	76	83	79	75	80	76	73	71
3	91	81	73	66	89	79	72	66	76	70	65	73	68	63	71	66	62	60
4	83	72	63	57	81	70	62	56	68	61	55	66	60	55	63	58	54	52
5	77	64	55	49	75	63	55	49	61	54	48	59	53	48	57	52	47	45
6	71	58	49	43	69	57	49	43	55	48	42	54	47	42	52	46	42	40
7	66	53	44	38	64	52	44	38	50	43	38	49	42	37	48	42	37	35
8	62	48	40	34	60	47	39	34	46	39	34	45	38	33	44	38	33	31
9	58	44	36	31	56	44	36	31	43	35	30	41	35	30	40	34	30	28
10	54	41	33	28	53	40	33	28	39	32	28	38	32	28	38	32	27	26

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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	14.3	15.9	14.6	16.2	16.5	15.3	16.9	15.7	17.2	17.5
	3H	15.6	17.0	15.9	17.3	17.7	17.1	18.6	17.5	18.9	19.3
	4H	16.0	17.3	16.4	17.7	18.1	17.9	19.3	18.3	19.6	20.0
	6H	16.2	17.5	16.7	17.9	18.3	18.6	19.9	19.0	20.2	20.6
	8H	16.3	17.5	16.7	17.9	18.3	18.8	20.0	19.3	20.4	20.8
	12H	16.3	17.5	16.8	17.9	18.3	19.0	20.1	19.4	20.5	21.0

UGR Viewed Endwise

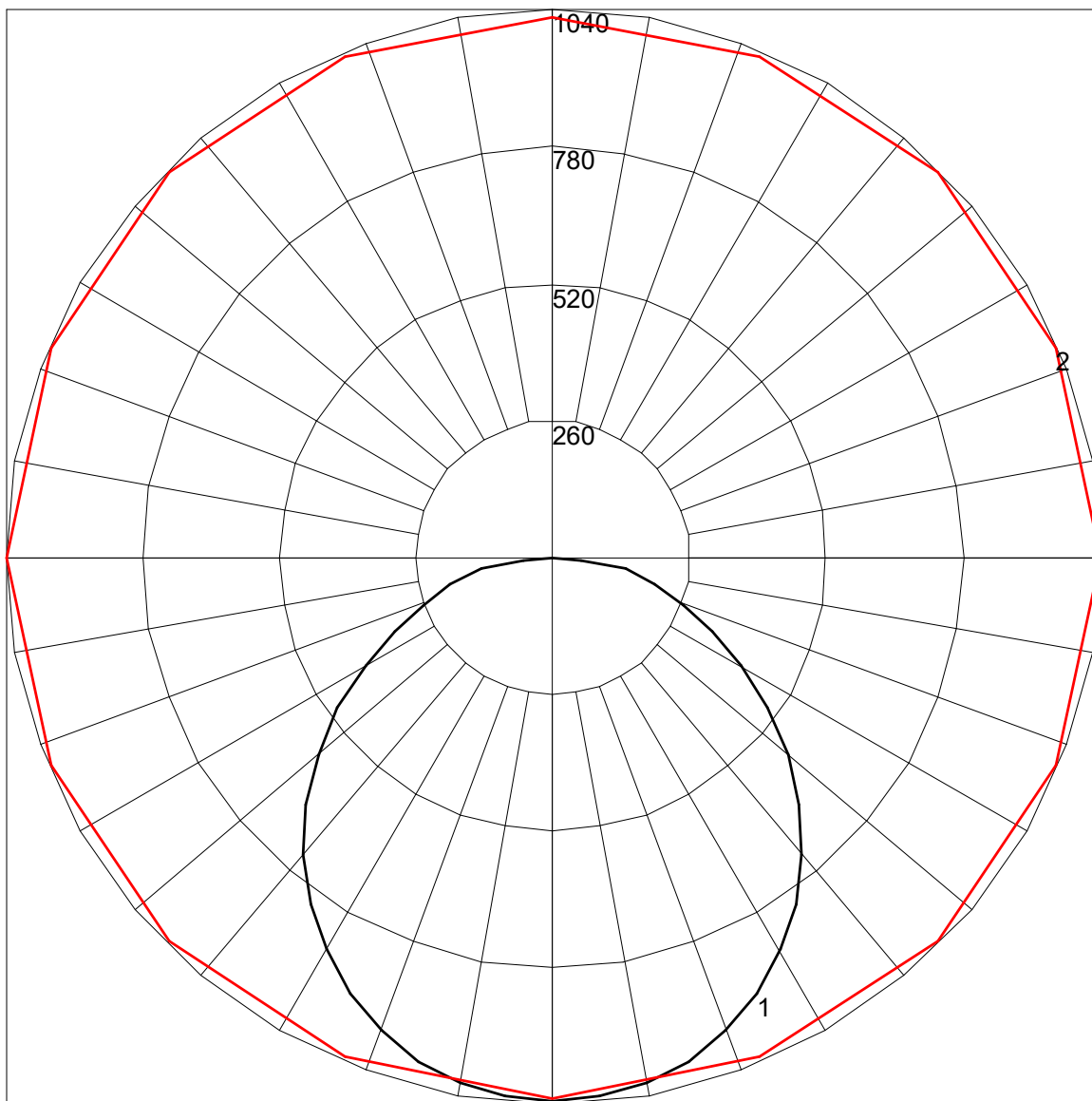
4H	2H	15.0	16.3	15.4	16.7	17.1	15.8	17.2	16.2	17.5	17.9
	3H	16.5	17.6	16.9	18.0	18.4	17.9	19.0	18.3	19.4	19.8
	4H	17.1	18.1	17.5	18.5	18.9	18.8	19.8	19.2	20.2	20.7
	6H	17.4	18.3	17.9	18.8	19.2	19.7	20.6	20.1	21.0	21.5
	8H	17.5	18.4	18.0	18.8	19.3	20.0	20.8	20.4	21.2	21.7
	12H	17.6	18.4	18.1	18.8	19.3	20.2	20.9	20.7	21.4	21.9

8H	4H	17.5	18.3	18.0	18.8	19.3	19.1	19.9	19.5	20.3	20.8
	6H	18.0	18.7	18.5	19.2	19.7	20.0	20.7	20.5	21.2	21.7
	8H	18.2	18.8	18.7	19.4	19.8	20.4	21.1	21.0	21.6	22.1
	12H	18.3	18.9	18.8	19.4	19.9	20.7	21.3	21.2	21.7	22.3

12H	4H	17.6	18.3	18.1	18.8	19.3	19.1	19.8	19.5	20.3	20.8
	6H	18.2	18.8	18.7	19.3	19.8	20.1	20.7	20.6	21.2	21.7
	8H	18.4	19.0	18.9	19.5	20.0	20.5	21.1	21.0	21.6	22.1

Maximum UGR = 22.3

POLAR GRAPH



Maximum Candela = 1039.91 Located At Horizontal Angle = 0, Vertical Angle = 5
1 - Vertical Plane Through Horizontal Angles (90 - 270)
2 - Horizontal Cone Through Vertical Angle (5) (Through Max. Cd.)