IES INDOOR REPORT
PHOTOMETRIC FILENAME : PTDC-22-L52-850-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
[ISSUEDATE] 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-L52-850-RA-DIM-UNV
[LAMPCAT] HLM 80 CRI 5000K 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	5519
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	159
Total Luminaire Watts	34.7
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	5186	5379	5554
55	4384	4831	5155
65	3351	4192	4661
75	2329	3718	4595
85	1327	3032	3790

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	2109.323	2109.323	2109.323	2109.323	2109.323
5	2116.415	2103.649	2100.812	2093.719	2093.719
10	2088.045	2075.279	2073.860	2066.768	2065.349
15	2038.397	2024.212	2022.794	2019.957	2018.538
20	1967.472	1954.705	1953.287	1954.705	1954.705
25	1868.176	1855.410	1863.921	1869.595	1863.921
30	1746.185	1740.511	1749.022	1758.951	1751.859
35	1605.752	1604.334	1622.774	1629.867	1636.959
40	1444.042	1444.042	1475.249	1488.016	1499.364
45	1259.636	1259.636	1306.447	1336.235	1349.002
50	1065.300	1066.719	1129.133	1168.851	1187.292
55	863.872	879.476	951.820	994.375	1015.652
60	666.699	697.906	770.250	817.061	839.757
65	486.549	527.685	608.540	659.607	676.629
70	327.676	378.742	459.597	512.082	531.941
75	207.102	256.750	330.513	382.997	408.531
80	112.062	154.617	219.869	256.750	282.283
85	39.718	69.507	90.785	90.785	113.481
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	770.67	N.A.	14.00
0-30	1628.53	N.A.	29.50
0-40	2640.06	N.A.	47.80
0-60	4485.08	N.A.	81.30
0-80	5418.18	N.A.	98.20
0-90	5519.14	N.A.	100.00
10-90	5319.49	N.A.	96.40
20-40	1869.39	N.A.	33.90
20-50	2872.43	N.A.	52.00
40-70	2437.35	N.A.	44.20
60-80	933.10	N.A.	16.90
70-80	340.76	N.A.	6.20
80-90	100.96	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	5519.14	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	199.65
10-20	571.02
20-30	857.86
30-40	1011.54
40-50	1003.04
50-60	841.98
60-70	592.34
70-80	340.76
80-90	100.96
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					UGR Viewed Endwise				
X=2H	Y=2H	16.7	18.3	17.0	18.6	18.9	17.7	19.3	18.1	19.6	19.9
	3H	18.0	19.4	18.3	19.7	20.1	19.5	21.0	19.9	21.3	21.7
	4H	18.4	19.7	18.8	20.1	20.5	20.3	21.7	20.7	22.0	22.4
	6H	18.6	19.9	19.1	20.3	20.7	21.0	22.3	21.4	22.6	23.0
	8H	18.7	19.9	19.1	20.3	20.7	21.2	22.4	21.7	22.8	23.2
	12H	18.7	19.9	19.2	20.3	20.7	21.4	22.5	21.8	22.9	23.4
4H	2H	17.4	18.7	17.8	19.1	19.5	18.2	19.6	18.6	19.9	20.3
	3H	18.9	20.0	19.3	20.4	20.8	20.3	21.4	20.7	21.8	22.2
	4H	19.5	20.5	19.9	20.9	21.3	21.2	22.2	21.6	22.6	23.1
	6H	19.8	20.7	20.3	21.2	21.6	22.1	23.0	22.5	23.4	23.9
	8H	19.9	20.8	20.4	21.2	21.7	22.4	23.2	22.8	23.6	24.1
	12H	20.0	20.8	20.5	21.2	21.7	22.6	23.3	23.1	23.8	24.3
8H	4H	19.9	20.7	20.4	21.2	21.7	21.5	22.3	21.9	22.7	23.2
	6H	20.4	21.1	20.9	21.6	22.1	22.4	23.1	22.9	23.6	24.1
	8H	20.6	21.2	21.1	21.8	22.2	22.8	23.5	23.4	24.0	24.5
	12H	20.7	21.3	21.2	21.8	22.3	23.1	23.7	23.6	24.1	24.7
12H	4H	20.0	20.7	20.5	21.2	21.7	21.5	22.2	21.9	22.7	23.2
	6H	20.6	21.2	21.1	21.7	22.2	22.5	23.1	23.0	23.6	24.1
	8H	20.8	21.4	21.3	21.9	22.4	22.9	23.5	23.4	24.0	24.5

Maximum UGR = 24.7

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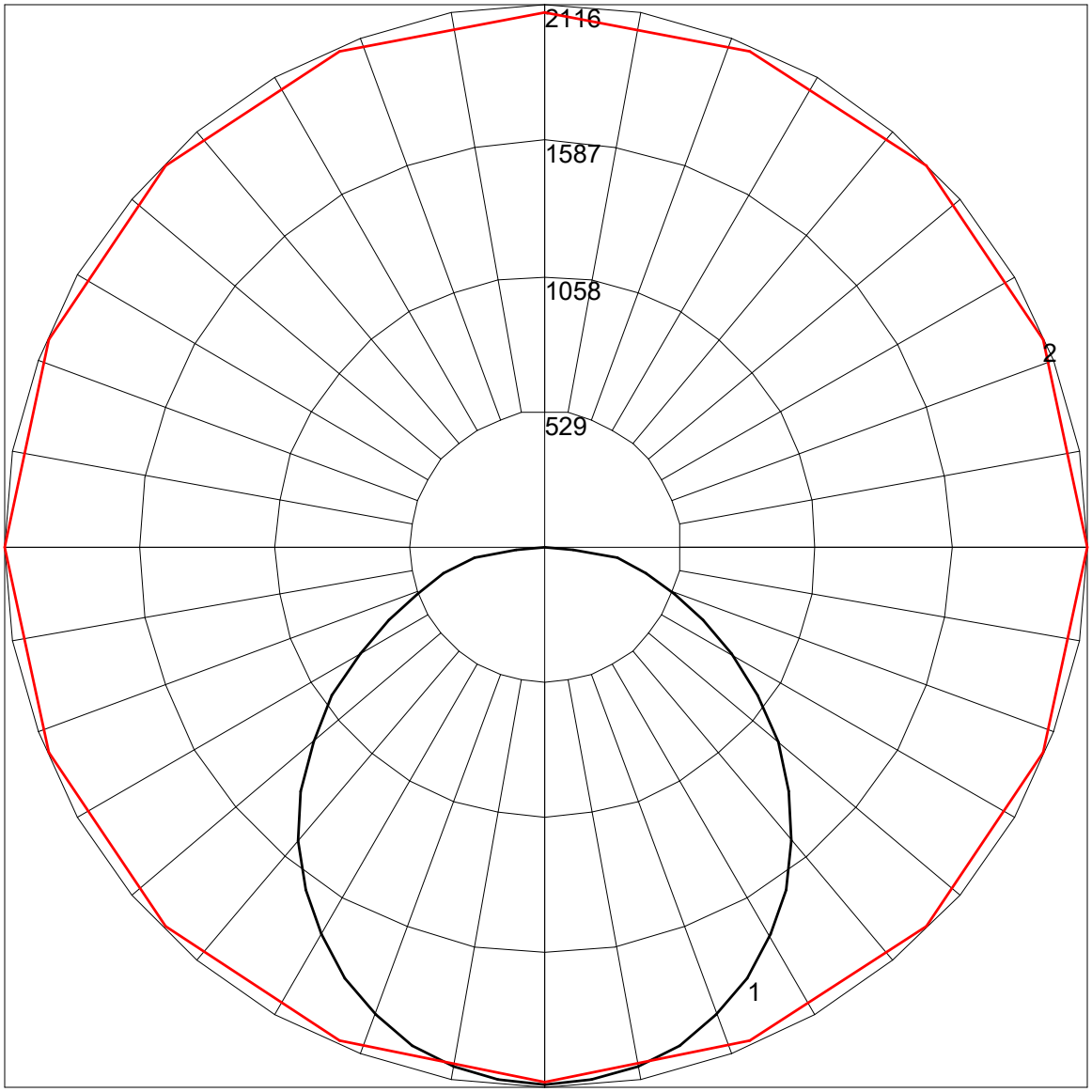
POLAR GRAPH



Maximum Candela = 2116.415 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.)

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