IES INDOOR REPORT
PHOTOMETRIC FILENAME : PTDC-22-L52-940-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-L52-940-RA-DIM-UNV
[LAMPCAT] HLM 90 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	4478
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	129
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	4207	4364	4506
55	3557	3919	4182
65	2719	3401	3781
75	1890	3016	3728
85	1076	2460	3075

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	1711.338	1711.338	1711.338	1711.338	1711.338
5	1717.092	1706.734	1704.433	1698.678	1698.678
10	1694.075	1683.717	1682.566	1676.812	1675.661
15	1653.794	1642.286	1641.135	1638.833	1637.682
20	1596.251	1585.893	1584.743	1585.893	1585.893
25	1515.691	1505.333	1512.238	1516.841	1512.238
30	1416.716	1412.113	1419.018	1427.074	1421.320
35	1302.780	1301.629	1316.591	1322.345	1328.099
40	1171.582	1171.582	1196.901	1207.258	1216.465
45	1021.969	1021.969	1059.948	1084.116	1094.474
50	864.300	865.451	916.089	948.314	963.275
55	700.877	713.537	772.231	806.757	824.020
60	540.907	566.226	624.920	662.899	681.313
65	394.747	428.122	493.722	535.153	548.963
70	265.850	307.281	372.881	415.463	431.575
75	168.026	208.307	268.152	310.734	331.449
80	90.918	125.444	178.384	208.307	229.022
85	32.224	56.392	73.655	73.655	92.069
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	625.26	N.A.	14.00
0-30	1321.26	N.A.	29.50
0-40	2141.94	N.A.	47.80
0-60	3638.84	N.A.	81.30
0-80	4395.88	N.A.	98.20
0-90	4477.79	N.A.	100.00
10-90	4315.82	N.A.	96.40
20-40	1516.68	N.A.	33.90
20-50	2330.46	N.A.	52.00
40-70	1977.48	N.A.	44.20
60-80	757.04	N.A.	16.90
70-80	276.46	N.A.	6.20
80-90	81.91	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	4477.79	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	161.98
10-20	463.28
20-30	696.00
30-40	820.68
40-50	813.78
50-60	683.12
60-70	480.58
70-80	276.46
80-90	81.91
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	16.0	17.6	16.3	17.9	18.2	17.0	18.6	17.4	18.9	19.2
	3H	17.3	18.7	17.6	19.0	19.4	18.8	20.3	19.2	20.6	21.0
	4H	17.7	19.0	18.1	19.4	19.8	19.6	21.0	20.0	21.3	21.7
	6H	17.9	19.2	18.4	19.6	20.0	20.3	21.6	20.7	21.9	22.3
	8H	18.0	19.2	18.4	19.6	20.0	20.5	21.7	21.0	22.1	22.5
	12H	18.0	19.2	18.5	19.6	20.0	20.7	21.8	21.1	22.2	22.7
4H	2H	16.7	18.0	17.1	18.4	18.8	17.5	18.9	17.9	19.2	19.6
	3H	18.2	19.3	18.6	19.7	20.1	19.6	20.7	20.0	21.1	21.5
	4H	18.8	19.8	19.2	20.2	20.6	20.5	21.5	20.9	21.9	22.4
	6H	19.1	20.0	19.6	20.5	20.9	21.4	22.3	21.8	22.7	23.2
	8H	19.2	20.1	19.7	20.5	21.0	21.7	22.5	22.1	22.9	23.4
	12H	19.3	20.1	19.8	20.5	21.0	21.9	22.6	22.3	23.1	23.6
8H	4H	19.2	20.0	19.7	20.5	20.9	20.8	21.6	21.2	22.0	22.5
	6H	19.7	20.4	20.2	20.9	21.4	21.7	22.4	22.2	22.9	23.4
	8H	19.9	20.5	20.4	21.1	21.5	22.1	22.8	22.7	23.3	23.8
	12H	20.0	20.6	20.5	21.1	21.6	22.4	23.0	22.9	23.4	24.0
12H	4H	19.3	20.0	19.8	20.5	21.0	20.8	21.5	21.2	22.0	22.5
	6H	19.9	20.5	20.4	21.0	21.5	21.8	22.4	22.3	22.9	23.4
	8H	20.1	20.7	20.6	21.2	21.7	22.2	22.8	22.7	23.3	23.8

Maximum UGR = 24.0

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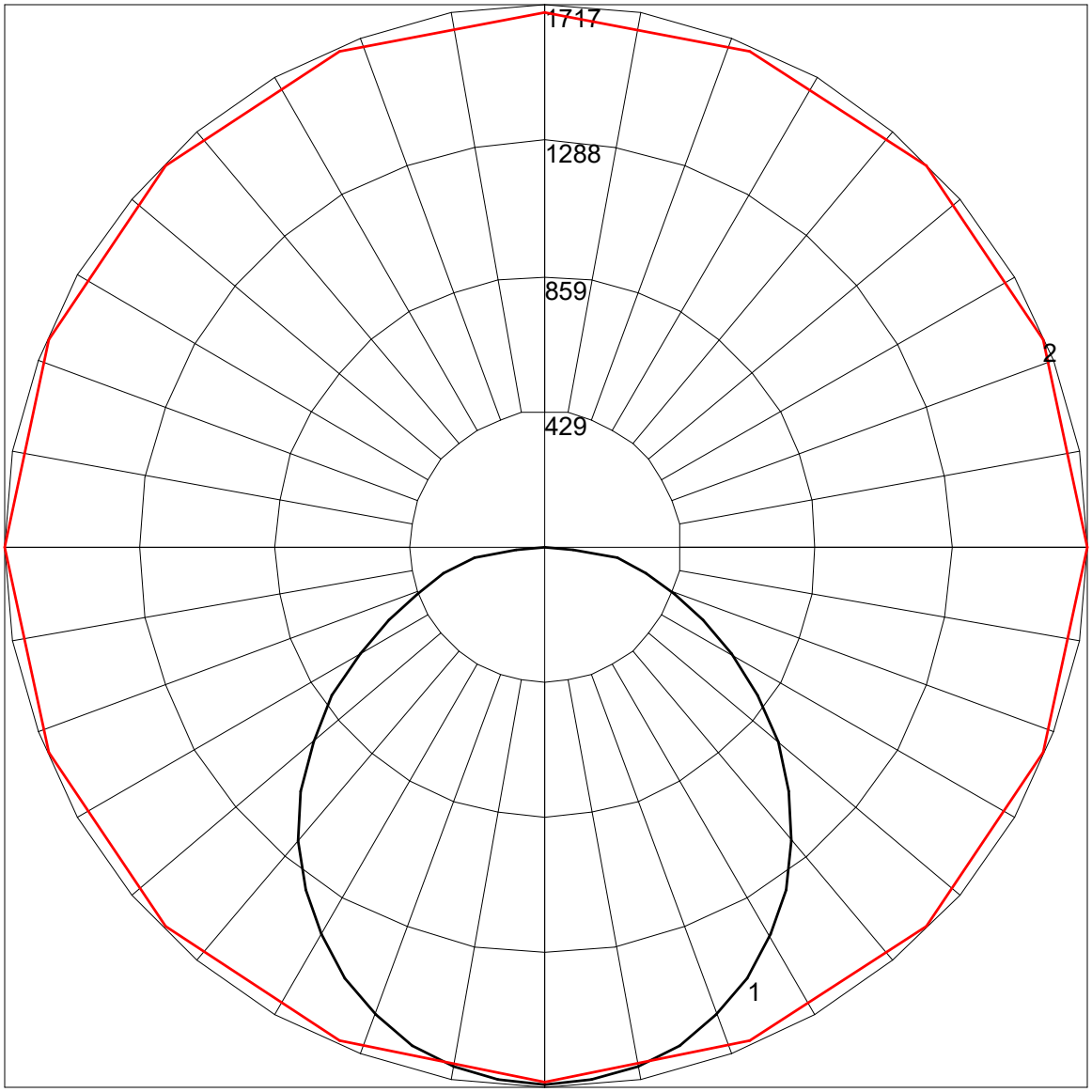
POLAR GRAPH



Maximum Candela = 1717.092 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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