



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : LPT-22-L54-835-SAF12095-DIM-UNV\_.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN FROM BALLABS TEST NO. 18632.0

[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC

[ISSUEDATE] 27-MAR-2020

[MANUFAC] WILLIAMS INDOOR

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

[LUMINAIRE] 2-56 LED 22" ARRAYS 2x2' WHITE REFL RECESSED LUMINAIRE

[MORE] ARRAYS ON INTERNAL WHITE REFLS w/PAT12 LENS (PRISMS DOWN)

[MORE] 0-10V LED DRIVER

[LUMCAT] LPT-22-L54-835-SAF12095-DIM-UNV

[LAMPCAT] HLM 80 CRI 3500K CCT

[\_SEARCH\_SOURCETYPE]LED

[\_SEARCH\_APPLICATION]INDOOR,DIRECT

[\_SEARCH\_MOUNTING]RECESSED

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	5376
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	127
Total Luminaire Watts	42.4
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.20
Spacing Criterion (90-270)	1.22
Spacing Criterion (Diagonal)	1.28
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	1.77 ft
Luminous Width (90-270)	1.77 ft
Luminous Height	0.00 ft

### LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	6144	6254	6302
55	4905	4853	4748
65	3907	3643	3664
75	3215	3132	3546
85	3100	3396	3691

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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>	2339.716	2339.716	2339.716	2339.716	2339.716
<b>5</b>	2337.228	2338.472	2329.765	2322.302	2322.302
<b>10</b>	2293.693	2293.693	2297.424	2288.717	2293.693
<b>15</b>	2232.743	2229.011	2235.231	2233.987	2238.962
<b>20</b>	2138.209	2135.721	2138.209	2148.160	2161.843
<b>25</b>	2018.798	2015.066	2022.529	2032.480	2066.065
<b>30</b>	1865.802	1859.583	1864.558	1904.362	1919.288
<b>35</b>	1689.173	1696.636	1696.636	1743.903	1743.903
<b>40</b>	1485.178	1495.129	1501.349	1539.909	1527.470
<b>45</b>	1260.038	1257.551	1282.428	1306.061	1292.379
<b>50</b>	1026.191	1018.728	1042.361	1059.776	1037.386
<b>55</b>	815.977	803.539	807.270	818.465	789.856
<b>60</b>	630.641	616.959	604.520	609.495	592.081
<b>65</b>	478.889	455.256	446.549	447.792	449.036
<b>70</b>	345.795	335.844	324.650	333.357	340.820
<b>75</b>	241.310	245.042	235.091	247.530	266.188
<b>80</b>	157.971	159.215	160.459	171.654	192.800
<b>85</b>	78.364	72.144	85.827	95.778	93.290
<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	850.44	N.A.	15.80
0-30	1782.53	N.A.	33.20
0-40	2849.64	N.A.	53.00
0-60	4564.34	N.A.	84.90
0-80	5284.19	N.A.	98.30
0-90	5375.8	N.A.	100.00
10-90	5154.58	N.A.	95.90
20-40	1999.2	N.A.	37.20
20-50	2984.55	N.A.	55.50
40-70	2172.79	N.A.	40.40
60-80	719.86	N.A.	13.40
70-80	261.76	N.A.	4.90
80-90	91.60	N.A.	1.70
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	5375.8	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	221.22
10-20	629.22
20-30	932.09
30-40	1067.11
40-50	985.35
50-60	729.34
60-70	458.10
70-80	261.76
80-90	91.60
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	240	240	240	240	235	235	235	235	224	224	224	215	215	215	206	206	206	202
1	222	213	205	198	216	208	201	194	200	194	188	192	187	183	185	181	177	173
2	203	188	175	165	198	184	173	163	177	167	159	171	163	155	165	158	152	148
3	187	167	152	140	182	164	150	138	158	146	136	153	142	134	148	139	131	127
4	172	150	133	120	168	147	131	120	142	129	118	137	126	116	133	123	115	111
5	159	135	118	105	155	133	117	105	128	114	103	124	112	102	121	110	101	97
6	148	122	105	93	144	120	104	92	117	102	92	113	101	91	110	99	90	86
7	137	111	95	83	134	110	94	82	107	92	82	104	91	81	101	90	81	77
8	128	102	86	74	125	101	85	74	98	84	74	96	83	73	93	82	73	69
9	120	94	78	67	117	93	78	67	91	77	67	88	76	67	86	75	66	63
10	113	87	72	61	110	86	71	61	84	70	61	82	70	61	80	69	61	57

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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	14.4	15.9	14.7	16.2	16.5	14.3	15.9	14.7	16.2	16.5
	3H	15.7	17.1	16.1	17.4	17.8	15.7	17.0	16.0	17.4	17.7
	4H	16.3	17.6	16.7	17.9	18.3	16.3	17.6	16.7	17.9	18.3
	6H	16.8	17.9	17.2	18.3	18.7	16.9	18.1	17.3	18.5	18.9
	8H	16.9	18.1	17.4	18.5	18.9	17.2	18.3	17.6	18.7	19.1
	12H	17.1	18.1	17.5	18.5	19.0	17.3	18.4	17.8	18.8	19.2

UGR Viewed Endwise

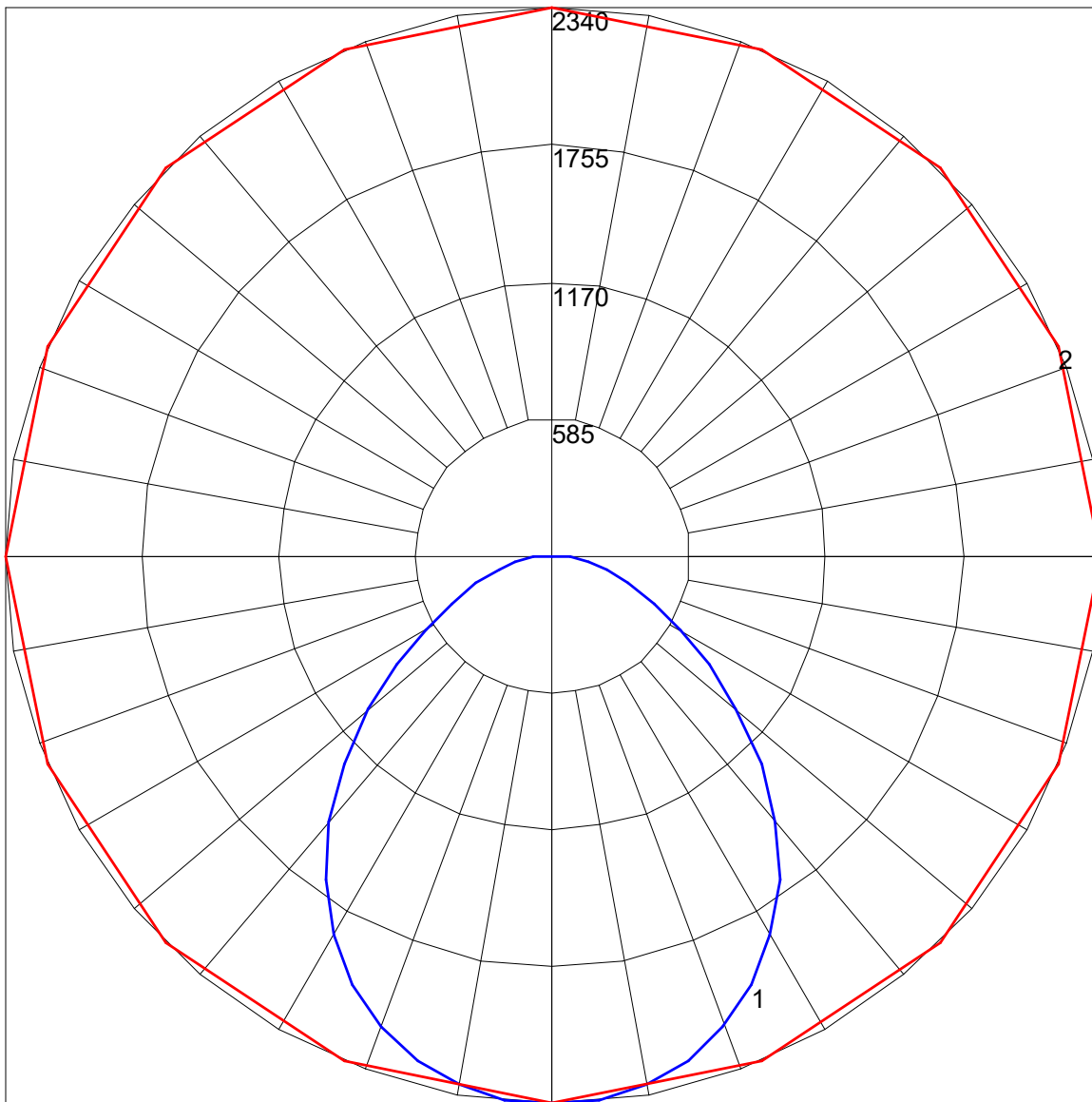
4H	2H	14.8	16.1	15.2	16.4	16.8	14.7	16.0	15.1	16.4	16.8
	3H	16.4	17.5	16.8	17.9	18.3	16.3	17.4	16.7	17.8	18.2
	4H	17.1	18.1	17.5	18.5	18.9	17.1	18.1	17.5	18.5	18.9
	6H	17.7	18.6	18.2	19.0	19.5	17.9	18.7	18.3	19.2	19.6
	8H	17.9	18.7	18.4	19.2	19.6	18.2	19.0	18.7	19.4	19.9
	12H	18.1	18.8	18.6	19.3	19.8	18.5	19.2	18.9	19.6	20.1

8H	4H	17.3	18.1	17.8	18.6	19.0	17.4	18.1	17.8	18.6	19.1
	6H	18.1	18.8	18.6	19.3	19.7	18.3	18.9	18.8	19.4	19.9
	8H	18.4	19.0	18.9	19.5	20.0	18.7	19.3	19.2	19.8	20.3
	12H	18.7	19.2	19.2	19.7	20.3	19.1	19.6	19.6	20.1	20.7

12H	4H	17.4	18.1	17.9	18.6	19.0	17.4	18.1	17.9	18.6	19.0
	6H	18.2	18.8	18.7	19.2	19.8	18.3	18.9	18.9	19.4	19.9
	8H	18.6	19.1	19.1	19.6	20.1	18.8	19.3	19.3	19.8	20.4

Maximum UGR = 20.7

POLAR GRAPH



Maximum Candela = 2339.716 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)  
# 2 - Horizontal Cone Through Vertical Angle (0) (Through Max. Cd.)