



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 75S-4-L50-835-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN FROM BALLABS TEST NO. 19745.0

[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC

[ISSUEDATE] 1-SEP-2020

[MANUFAC] WILLIAMS INDOOR

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

[LUMINAIRE] 4' LED STRIP LUMINAIRE

[MORE] WHITE REFLECTOR w/FROSTED ACRYLIC SQUARE LENS

[LUMCAT] 75S-4-L50-835-DIM-UNV

[LAMPCAT] HLM 80 CRI 3500K CCT

[_SEARCH_SOURCETYPE] LED

[_SEARCH_APPLICATION] Indoor, Commercial, Industrial, Manufacturing, Utility, Warehouse, Linear

[_SEARCH_MOUNTING] Surface, Suspended

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	4867
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	147
Total Luminaire Watts	33
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.20
Spacing Criterion (90-270)	1.18
Spacing Criterion (Diagonal)	1.30
Basic Luminous Shape	Rectangular w/Sides
Luminous Length (0-180)	3.72 ft
Luminous Width (90-270)	0.21 ft
Luminous Height	0.08 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	17527	14143	13372
55	14860	11856	11982
65	11668	10131	10884
75	8035	8281	9657
85	3590	7025	8465

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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	1642.157	1642.157	1642.157	1642.157	1642.157
5	1656.282	1635.467	1634.723	1631.006	1611.678
10	1628.033	1609.448	1610.935	1606.474	1588.633
15	1582.686	1564.844	1569.305	1564.844	1549.976
20	1506.859	1493.478	1506.859	1500.169	1484.558
25	1413.192	1407.988	1419.882	1419.139	1396.094
30	1309.860	1312.090	1325.471	1325.471	1297.222
35	1183.483	1201.325	1208.015	1210.245	1181.253
40	1045.955	1072.717	1066.770	1078.665	1063.797
45	911.401	935.190	933.703	955.261	951.544
50	773.873	795.431	812.530	848.956	856.390
55	632.628	659.390	697.303	751.571	776.103
60	499.561	532.270	596.945	663.851	695.817
65	371.697	423.735	504.764	581.334	614.043
70	254.984	323.376	410.353	493.614	532.270
75	162.060	227.479	325.607	408.867	447.523
80	88.464	151.652	255.728	331.554	367.237
85	28.249	92.924	194.026	261.675	295.127
90	0.000	60.215	147.935	211.124	234.169
95	0.000	55.011	138.271	193.282	206.664
100	0.000	52.038	128.607	176.184	188.079
105	0.000	47.577	120.430	162.803	174.698
110	0.000	44.604	112.252	152.396	164.290
115	0.000	40.887	102.588	142.732	153.883
120	0.000	34.940	92.181	129.351	142.732
125	0.000	28.992	83.260	118.200	130.094
130	0.000	23.789	72.109	105.562	113.739
135	0.000	21.558	57.985	91.437	99.615
140	0.000	17.841	45.347	76.570	84.747
145	0.000	14.124	34.940	59.472	67.649
150	0.000	10.408	26.762	45.347	52.038
155	0.000	8.177	21.558	32.709	37.913
160	0.000	0.000	15.611	23.789	26.762
165	0.000	0.000	10.408	17.098	18.585
170	0.000	0.000	0.000	10.408	11.151
175	0.000	0.000	0.000	0.000	0.000
180	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	596.14	N.A.	12.20
0-30	1246.98	N.A.	25.60
0-40	1996.17	N.A.	41.00
0-60	3354.26	N.A.	68.90
0-80	4188.77	N.A.	86.10
0-90	4388.03	N.A.	90.20
10-90	4232.87	N.A.	87.00
20-40	1400.03	N.A.	28.80
20-50	2126.68	N.A.	43.70
40-70	1854.49	N.A.	38.10
60-80	834.51	N.A.	17.10
70-80	338.11	N.A.	6.90
80-90	199.26	N.A.	4.10
90-110	245.19	N.A.	5.00
90-120	334.95	N.A.	6.90
90-130	401.07	N.A.	8.20
90-150	466.70	N.A.	9.60
90-180	479.00	N.A.	9.80
110-180	233.81	N.A.	4.80
0-180	4867.03	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	155.16
10-20	440.98
20-30	650.84
30-40	749.19
40-50	726.65
50-60	631.44
60-70	496.40
70-80	338.11
80-90	199.26
90-100	134.16
100-110	111.03
110-120	89.76
120-130	66.13
130-140	42.85
140-150	22.77
150-160	9.53
160-170	2.63
170-180	0.14

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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	117	117	117	117	113	113	113	113	106	106	106	99	99	99	93	93	93	90
1	106	101	96	92	102	97	93	89	91	88	85	86	83	81	81	78	76	74
2	96	88	81	75	92	85	78	73	80	74	70	75	71	67	71	67	64	61
3	88	77	69	62	84	75	67	61	70	64	59	66	61	56	62	58	54	52
4	80	68	60	53	77	66	58	52	63	56	50	59	53	48	56	51	47	44
5	74	61	52	46	71	59	51	45	56	49	44	53	47	42	50	45	41	39
6	68	55	46	40	66	54	45	39	51	44	38	48	42	37	46	40	36	34
7	63	50	41	35	61	49	41	35	46	39	34	44	38	33	42	36	32	30
8	59	46	37	32	57	45	37	31	43	35	30	41	34	30	39	33	29	27
9	55	42	34	28	53	41	33	28	39	32	27	37	31	27	36	30	26	24
10	52	39	31	26	50	38	31	26	36	30	25	35	29	24	33	28	24	22

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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	18.6	20.0	19.1	20.5	21.1	20.8	22.3	21.4	22.8	23.3
	3H	19.8	21.0	20.3	21.6	22.1	23.2	24.5	23.8	25.0	25.6
	4H	20.1	21.3	20.6	21.8	22.4	24.4	25.6	24.9	26.1	26.7
	6H	20.2	21.4	20.8	21.9	22.5	25.5	26.6	26.1	27.2	27.8
	8H	20.2	21.3	20.8	21.9	22.5	26.1	27.2	26.7	27.7	28.4
	12H	20.2	21.3	20.8	21.8	22.5	26.7	27.7	27.3	28.3	29.0

UGR Viewed Endwise

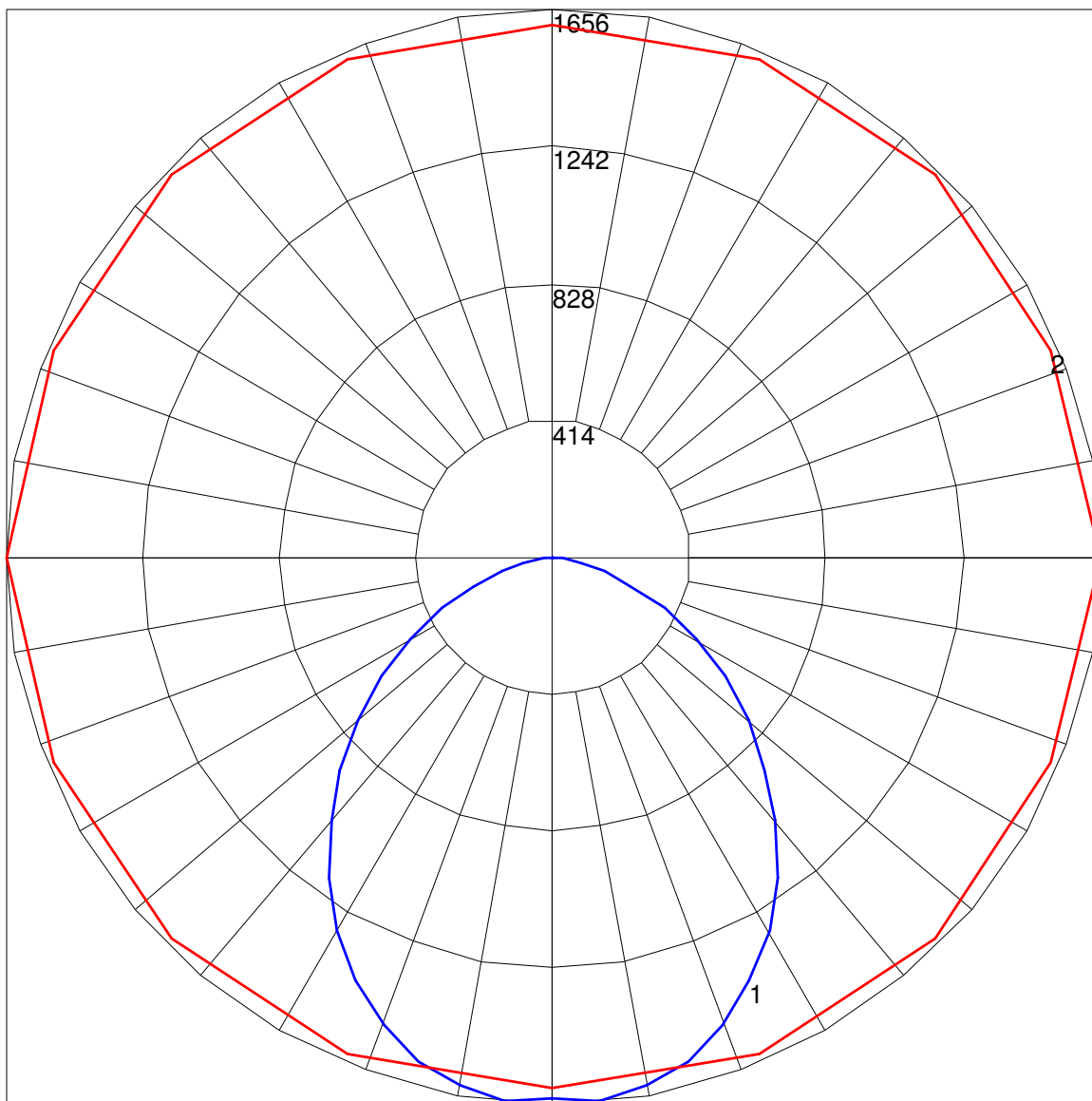
4H	2H	19.4	20.6	19.9	21.1	21.8	21.2	22.4	21.7	22.9	23.6
	3H	20.8	21.8	21.4	22.4	23.1	23.8	24.8	24.4	25.4	26.0
	4H	21.3	22.2	21.8	22.8	23.4	25.1	26.0	25.7	26.6	27.3
	6H	21.5	22.3	22.1	23.0	23.6	26.4	27.2	27.0	27.8	28.5
	8H	21.6	22.3	22.2	23.0	23.6	27.1	27.9	27.7	28.5	29.2
	12H	21.6	22.3	22.2	22.9	23.6	27.8	28.5	28.4	29.2	29.9

8H	4H	21.9	22.7	22.5	23.3	24.0	25.2	26.0	25.8	26.6	27.3
	6H	22.3	23.0	23.0	23.6	24.3	26.7	27.4	27.4	28.0	28.7
	8H	22.5	23.0	23.1	23.7	24.4	27.5	28.1	28.2	28.8	29.5
	12H	22.5	23.0	23.2	23.7	24.5	28.4	28.9	29.1	29.6	30.4

12H	4H	22.1	22.8	22.7	23.4	24.1	25.2	25.9	25.8	26.6	27.3
	6H	22.6	23.2	23.3	23.8	24.6	26.7	27.3	27.4	27.9	28.7
	8H	22.8	23.3	23.5	24.0	24.8	27.6	28.1	28.2	28.8	29.5

Maximum UGR = 30.4

POLAR GRAPH



Maximum Candela = 1656.282 Located At Horizontal Angle = 0, Vertical Angle = 5
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (5) (Through Max. Cd.)