

IES INDOOR REPORT

PHOTOMETRIC FILENAME : RNDX-3-L67-835-FXA-(L40)-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST]GEN FROM BALLABS TEST NO. 18644.0
[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC
[ISSUE DATE] 07-19-2023
[MANUFAC] WILLIAMS INDOOR
[OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO 64836
[LUMINAIRE] 3' RND SURFACE LUMINAIRE
[MORE] WITH FROSTED ACRYLIC CONVEX LENS
[LUMCAT] RNDx-3-L67-835-FXA-(L40)-DIM-UNV
[LAMPCAT] HLM 80 CRI 3500K CCT
[SEARCH_SOURCETYPE] LED
[SEARCH_APPLICATION] INDOOR,ARCHITECTURAL,EDUCATION
[SEARCH_MOUNTING] SURFACE

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	4066
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	113
Total Luminaire Watts	36.09
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.28
Spacing Criterion (90-270)	1.28
Spacing Criterion (Diagonal)	1.38
Basic Luminous Shape	Circular w/ Sides
Luminous Length (0-180)	2.81 ft (Diameter)
Luminous Width (90-270)	2.81 ft (Diameter)
Luminous Height	0.15 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	2134	2155	2155
55	2010	2005	2009
65	1783	1805	1785
75	1425	1477	1405
85	981	1002	933

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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	1405.418	1405.418	1405.418	1405.418	1405.418
5	1400.532	1399.921	1399.310	1398.089	1399.921
10	1384.040	1384.651	1385.873	1382.208	1385.873
15	1354.112	1358.387	1358.387	1354.723	1358.387
20	1312.579	1318.686	1318.076	1318.076	1315.022
25	1260.051	1261.883	1263.105	1260.662	1261.273
30	1194.697	1197.751	1195.918	1191.032	1198.972
35	1117.738	1123.846	1115.295	1116.516	1124.457
40	1027.342	1035.282	1031.617	1035.282	1037.114
45	929.616	934.502	938.778	946.107	938.778
50	832.501	827.004	835.555	844.106	835.555
55	729.278	719.506	727.446	732.332	728.667
60	619.337	608.343	618.726	621.780	621.169
65	497.180	495.958	503.287	502.066	497.790
70	378.687	383.573	389.071	383.573	376.244
75	265.692	265.692	275.464	265.692	262.027
80	163.080	163.691	167.966	158.804	162.469
85	86.732	91.618	88.564	83.678	82.456
90	32.982	36.647	34.815	32.372	32.372
95	5.497	5.497	6.719	6.719	3.054
100	0.000	0.000	0.000	0.000	0.000
105	0.000	0.000	0.000	0.000	0.000
110	0.000	0.000	0.000	0.000	0.000
115	0.000	0.000	0.000	0.000	0.000
120	0.000	0.000	0.000	0.000	0.000
125	0.000	0.000	0.000	0.000	0.000
130	0.000	0.000	0.000	0.000	0.000
135	0.000	0.000	0.000	0.000	0.000
140	0.000	0.000	0.000	0.000	0.000
145	0.000	0.000	0.000	0.000	0.000
150	0.000	0.000	0.000	0.000	0.000
155	0.000	0.000	0.000	0.000	0.000
160	0.000	0.000	0.000	0.000	0.000
165	0.000	0.000	0.000	0.000	0.000
170	0.000	0.000	0.000	0.000	0.000
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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Zone	Lumens	%Lamp	%Fixt
0-20	516.11	N.A.	12.70
0-30	1097.51	N.A.	27.00
0-40	1797.52	N.A.	44.20
0-60	3171.45	N.A.	78.00
0-80	3952.11	N.A.	97.20
0-90	4053.35	N.A.	99.70
10-90	3920.23	N.A.	96.40
20-40	1281.41	N.A.	31.50
20-50	2004.91	N.A.	49.30
40-70	1869.08	N.A.	46.00
60-80	780.66	N.A.	19.20
70-80	285.51	N.A.	7.00
80-90	101.24	N.A.	2.50
90-110	12.51	N.A.	0.30
90-120	12.51	N.A.	0.30
90-130	12.51	N.A.	0.30
90-150	12.51	N.A.	0.30
90-180	12.51	N.A.	0.30
110-180	0.00	N.A.	0.00
0-180	4065.86	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	133.12
10-20	383.00
20-30	581.39
30-40	700.01
40-50	723.51
50-60	650.42
60-70	495.15
70-80	285.51
80-90	101.24
90-100	12.51
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	108	103	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83
2	98	90	83	77	96	88	82	76	85	79	74	81	77	73	78	74	71	69
3	90	79	71	64	87	77	70	64	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	69	60	54	66	59	53	64	57	52	61	56	52	49
5	75	62	53	47	73	61	53	46	59	52	46	57	51	45	55	49	45	43
6	70	56	47	41	68	55	47	41	53	46	40	52	45	40	50	44	39	37
7	65	51	42	36	63	50	42	36	49	41	35	47	40	35	46	40	35	33
8	60	46	38	32	59	46	38	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	29	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

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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

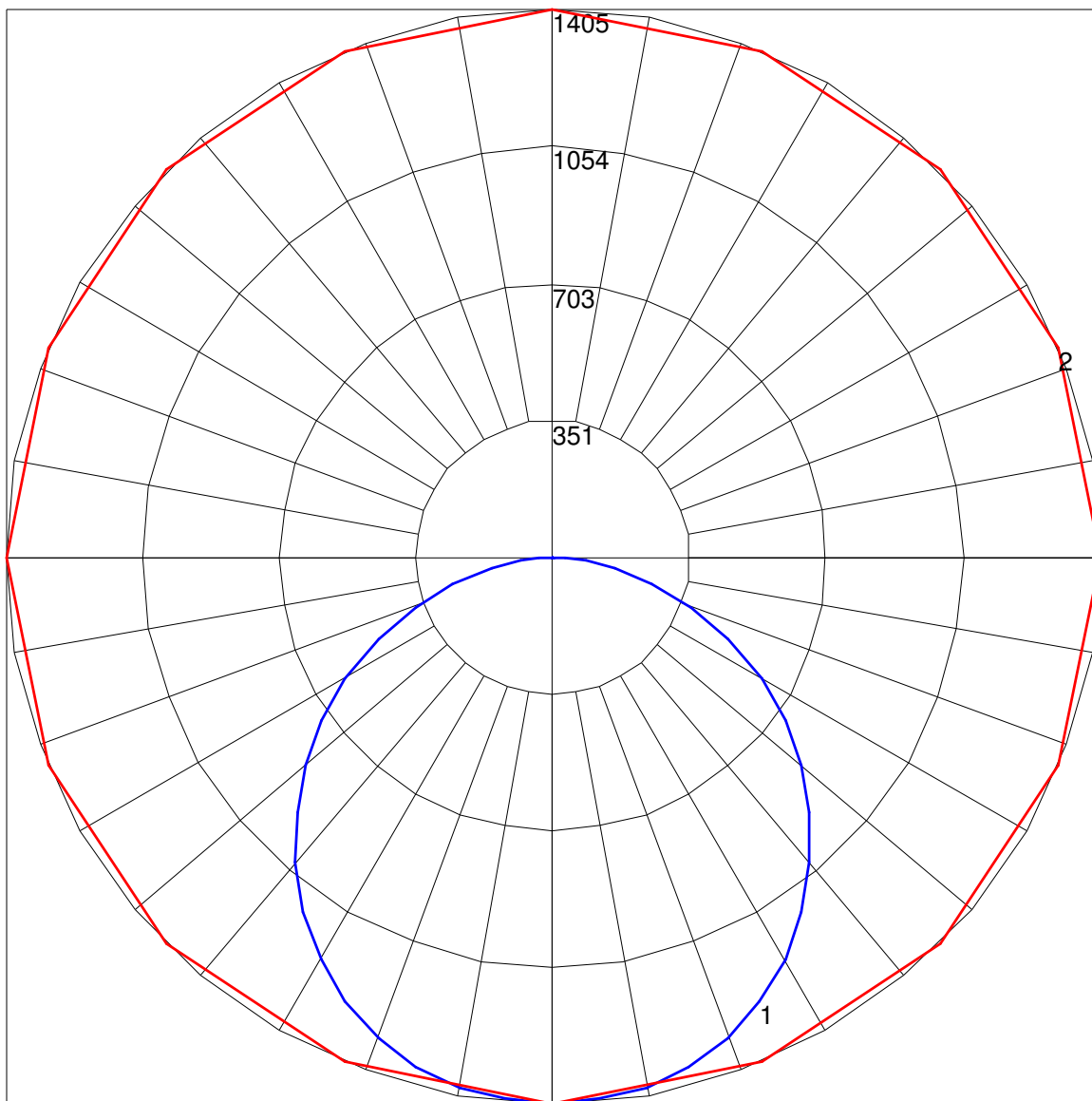
X=2H	Y=2H	13.6	15.3	14.0	15.6	15.9	13.7	15.4	14.1	15.7	16.0
	3H	15.4	16.9	15.8	17.2	17.6	15.4	16.9	15.8	17.3	17.6
	4H	16.0	17.4	16.4	17.8	18.1	16.0	17.5	16.4	17.8	18.2
	6H	16.5	17.8	16.9	18.1	18.5	16.5	17.8	16.9	18.2	18.5
	8H	16.6	17.9	17.0	18.2	18.6	16.6	17.9	17.1	18.3	18.7
	12H	16.7	17.9	17.1	18.3	18.7	16.7	17.9	17.2	18.3	18.7

UGR Viewed Endwise

4H	2H	14.2	15.7	14.6	16.0	16.4	14.3	15.7	14.7	16.1	16.5
	3H	16.2	17.4	16.6	17.8	18.2	16.3	17.4	16.7	17.8	18.2
	4H	17.0	18.0	17.4	18.4	18.9	17.0	18.1	17.4	18.5	18.9
	6H	17.5	18.5	18.0	18.9	19.4	17.5	18.5	18.0	18.9	19.4
	8H	17.7	18.6	18.2	19.0	19.5	17.7	18.6	18.2	19.0	19.5
	12H	17.9	18.7	18.4	19.2	19.6	17.9	18.7	18.4	19.1	19.6
8H	4H	17.2	18.1	17.7	18.6	19.0	17.3	18.2	17.7	18.6	19.1
	6H	17.9	18.7	18.4	19.1	19.6	17.9	18.7	18.4	19.2	19.6
	8H	18.2	18.9	18.7	19.4	19.9	18.2	18.9	18.7	19.4	19.8
	12H	18.5	19.0	19.0	19.5	20.1	18.4	19.0	18.9	19.5	20.1
12H	4H	17.3	18.1	17.8	18.5	19.0	17.3	18.1	17.8	18.6	19.0
	6H	18.0	18.7	18.5	19.1	19.7	18.0	18.7	18.5	19.1	19.7
	8H	18.3	18.9	18.8	19.4	20.0	18.3	18.9	18.8	19.4	19.9

Maximum UGR = 20.1

POLAR GRAPH



Maximum Candela = 1405.418 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.)