



IES INDOOR REPORT

PHOTOMETRIC FILENAME : RNDX-2-L45-840-FXA-(L34)-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] GEN FROM BALLABS TEST NO. 18645.0
 [TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC
 [ISSUE DATE] 14 APRIL 2020
 [MANUFAC] WILLIAMS INDOOR
 [OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO
 [LUMINAIRE] 8-28 LED 11"ARRAYS 26"DIA SURFACE LUMINAIRE w/WHITE REFL
 [MORE] WHITE FROST ACRYLIC 26"DIA CONVEX LENS & INTERNAL ACRYLIC
 [MORE] LIGHT SEAL RING
 [LUMCAT] RNDX-2-L45-840-FXA-(L34)-DIM-UNV
 [LAMPCAT] HLM 80 CRI 4000K CCT

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	3592
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	100
Total Luminaire Watts	36
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)	2.17 ft (Diameter)
Luminous Width (90-270)	2.17 ft (Diameter)
Luminous Height	0.48 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	2709	2644	2663
55	2324	2292	2308
65	1892	1886	1892
75	1336	1344	1296
85	646	612	635

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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	1246.065	1246.065	1246.065	1246.065	1246.065
5	1253.352	1246.065	1244.608	1238.778	1238.778
10	1235.863	1232.949	1230.034	1224.204	1224.204
15	1211.088	1209.630	1206.716	1203.801	1202.343
20	1170.281	1168.824	1167.366	1161.537	1165.909
25	1120.730	1125.102	1116.358	1117.815	1117.815
30	1066.807	1069.721	1059.520	1065.349	1062.434
35	995.395	995.395	992.480	991.022	986.650
40	919.611	913.781	910.866	909.409	907.951
45	842.369	827.795	821.966	823.423	827.795
50	750.554	746.182	728.693	735.980	737.437
55	641.250	654.366	632.506	639.792	636.878
60	533.403	547.977	531.946	537.775	539.233
65	440.131	438.673	438.673	440.131	440.131
70	345.400	336.656	342.486	335.199	338.114
75	243.383	239.011	244.841	231.724	236.097
80	155.940	155.940	151.568	148.653	150.111
85	81.614	83.071	77.241	80.156	80.156
90	33.520	32.062	36.435	34.977	37.892

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Zone	Lumens	%Lamp	%Fixt
0-20	458.33	N.A.	12.80
0-30	974.54	N.A.	27.10
0-40	1595.23	N.A.	44.40
0-60	2806.44	N.A.	78.10
0-80	3496.97	N.A.	97.40
0-90	3591.71	N.A.	100.00
10-90	3473.47	N.A.	96.70
20-40	1136.9	N.A.	31.70
20-50	1775.29	N.A.	49.40
40-70	1646.05	N.A.	45.80
60-80	690.53	N.A.	19.20
70-80	255.70	N.A.	7.10
80-90	94.74	N.A.	2.60
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	3591.71	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	118.24
10-20	340.09
20-30	516.21
30-40	620.69
40-50	638.38
50-60	572.83
60-70	434.83
70-80	255.70
80-90	94.74
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	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	75	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	62	56	52	49
5	75	62	53	47	73	61	53	46	59	52	46	57	51	45	55	50	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	36	47	40	35	46	40	35	33
8	60	47	38	32	59	46	38	32	44	37	32	43	36	32	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

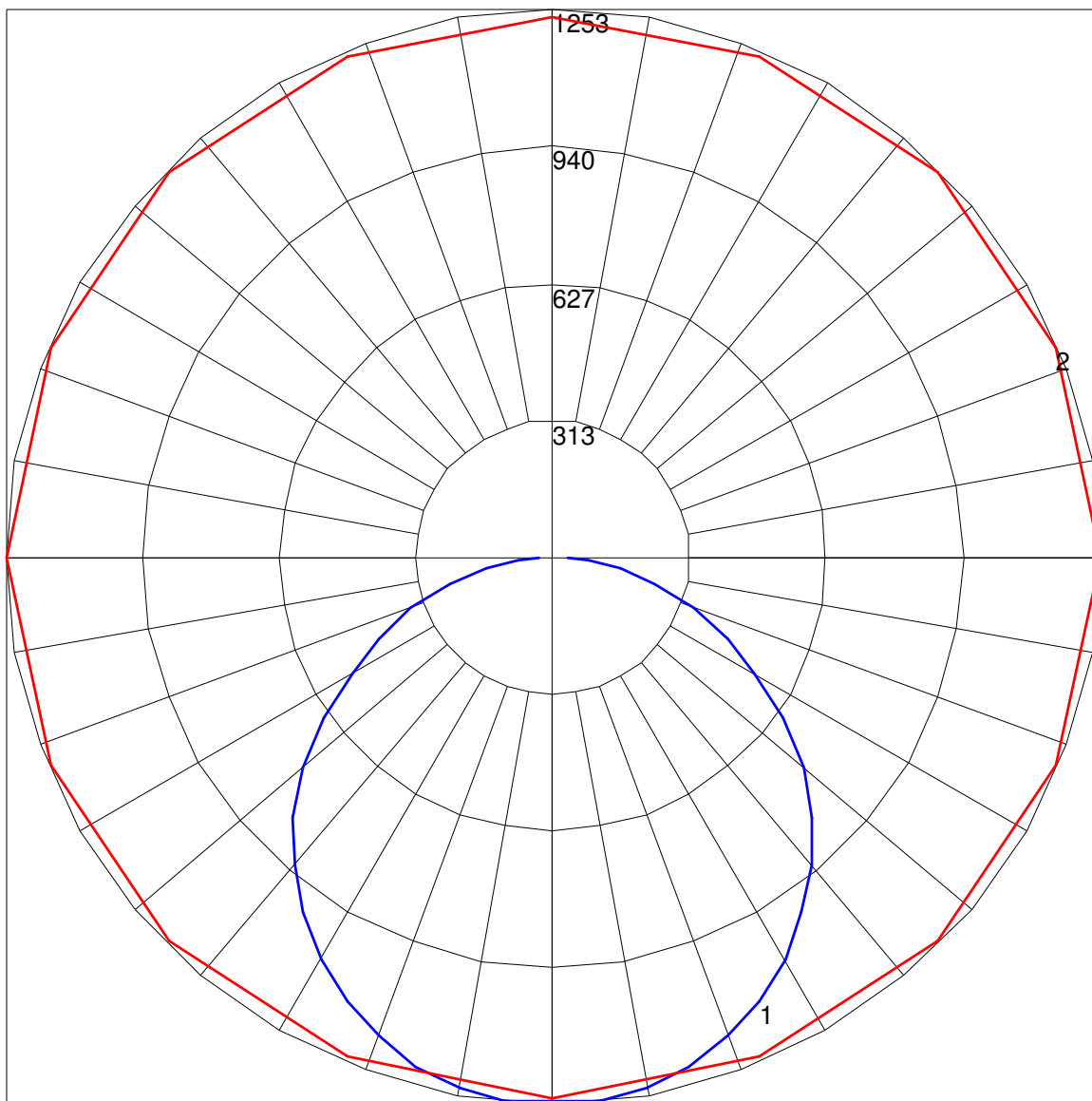
Reflectances

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					UGR Viewed Endwise				
X=2H	Y=2H	14.2	15.9	14.6	16.2	16.5	14.1	15.7	14.5	16.1	16.4
	3H	15.8	17.3	16.2	17.6	18.0	15.7	17.2	16.1	17.5	17.9
	4H	16.4	17.8	16.8	18.1	18.5	16.3	17.7	16.7	18.0	18.4
	6H	16.8	18.1	17.2	18.4	18.8	16.6	17.9	17.0	18.3	18.7
	8H	16.9	18.1	17.3	18.5	18.9	16.8	18.0	17.2	18.4	18.8
	12H	17.0	18.2	17.4	18.5	19.0	16.8	18.0	17.2	18.4	18.8
4H	2H	14.7	16.1	15.1	16.5	16.9	14.6	16.0	15.0	16.4	16.8
	3H	16.5	17.7	16.9	18.1	18.5	16.4	17.6	16.8	18.0	18.4
	4H	17.2	18.3	17.6	18.7	19.1	17.1	18.2	17.5	18.6	19.0
	6H	17.7	18.6	18.1	19.1	19.5	17.6	18.5	18.0	19.0	19.4
	8H	17.8	18.7	18.3	19.2	19.6	17.7	18.6	18.2	19.1	19.5
	12H	18.0	18.8	18.5	19.3	19.7	17.9	18.6	18.3	19.1	19.6
8H	4H	17.4	18.3	17.9	18.7	19.2	17.3	18.2	17.8	18.6	19.1
	6H	18.0	18.8	18.5	19.2	19.7	17.9	18.6	18.4	19.1	19.6
	8H	18.2	18.9	18.8	19.4	19.9	18.1	18.8	18.6	19.3	19.8
	12H	18.4	19.0	18.9	19.5	20.1	18.3	18.9	18.8	19.4	19.9
12H	4H	17.4	18.2	17.9	18.7	19.2	17.4	18.1	17.8	18.6	19.1
	6H	18.1	18.7	18.6	19.2	19.7	17.9	18.6	18.5	19.1	19.6
	8H	18.3	18.9	18.8	19.4	20.0	18.2	18.8	18.7	19.3	19.8

Maximum UGR = 20.1

POLAR GRAPH



Maximum Candela = 1253.352 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.)