



IES INDOOR REPORT
PHOTOMETRIC FILENAME : RNDX-2-L25-840-FXA-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] 04-26-2024
 [MANUFAC] WILLIAMS INDOOR
 [OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO 64836
 [LUMINAIRE] 2' RND SURFACE LUMINAIRE w/WHITE REFL
 [MORE] WITH FROST ACRYLIC CONVEX LENS
 [LUMCAT] RNDx-2-L25-840-FXA-DIM-UNV
 [LAMPCAT] HLM 80 CRI 4000K 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	2604
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	107
Total Luminaire Watts	24.3
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	1965	1917	1931
55	1685	1662	1674
65	1372	1367	1372
75	969	974	940
85	469	444	460

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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	903.524	903.524	903.524	903.524	903.524
5	908.808	903.524	902.467	898.240	898.240
10	896.127	894.013	891.900	887.673	887.673
15	878.162	877.105	874.992	872.878	871.821
20	848.573	847.516	846.459	842.232	845.402
25	812.643	815.813	809.473	810.530	810.530
30	773.543	775.657	768.259	772.486	770.373
35	721.762	721.762	719.649	718.592	715.422
40	666.811	662.584	660.471	659.414	658.357
45	610.803	600.236	596.009	597.065	600.236
50	544.228	541.058	528.377	533.660	534.717
55	464.971	474.482	458.631	463.915	461.801
60	386.772	397.339	385.715	389.942	390.999
65	319.139	318.083	318.083	319.139	319.139
70	250.450	244.110	248.337	243.053	245.167
75	176.478	173.307	177.535	168.024	171.194
80	113.073	113.073	109.902	107.789	108.846
85	59.178	60.235	56.008	58.121	58.121
90	24.305	23.249	26.419	25.362	27.476

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	332.33	N.A.	12.80
0-30	706.64	N.A.	27.10
0-40	1156.7	N.A.	44.40
0-60	2034.95	N.A.	78.10
0-80	2535.66	N.A.	97.40
0-90	2604.35	N.A.	100.00
10-90	2518.62	N.A.	96.70
20-40	824.37	N.A.	31.70
20-50	1287.26	N.A.	49.40
40-70	1193.55	N.A.	45.80
60-80	500.70	N.A.	19.20
70-80	185.41	N.A.	7.10
80-90	68.69	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	2604.35	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	85.74
10-20	246.60
20-30	374.31
30-40	450.06
40-50	462.89
50-60	415.36
60-70	315.30
70-80	185.41
80-90	68.69
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	75	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	76	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

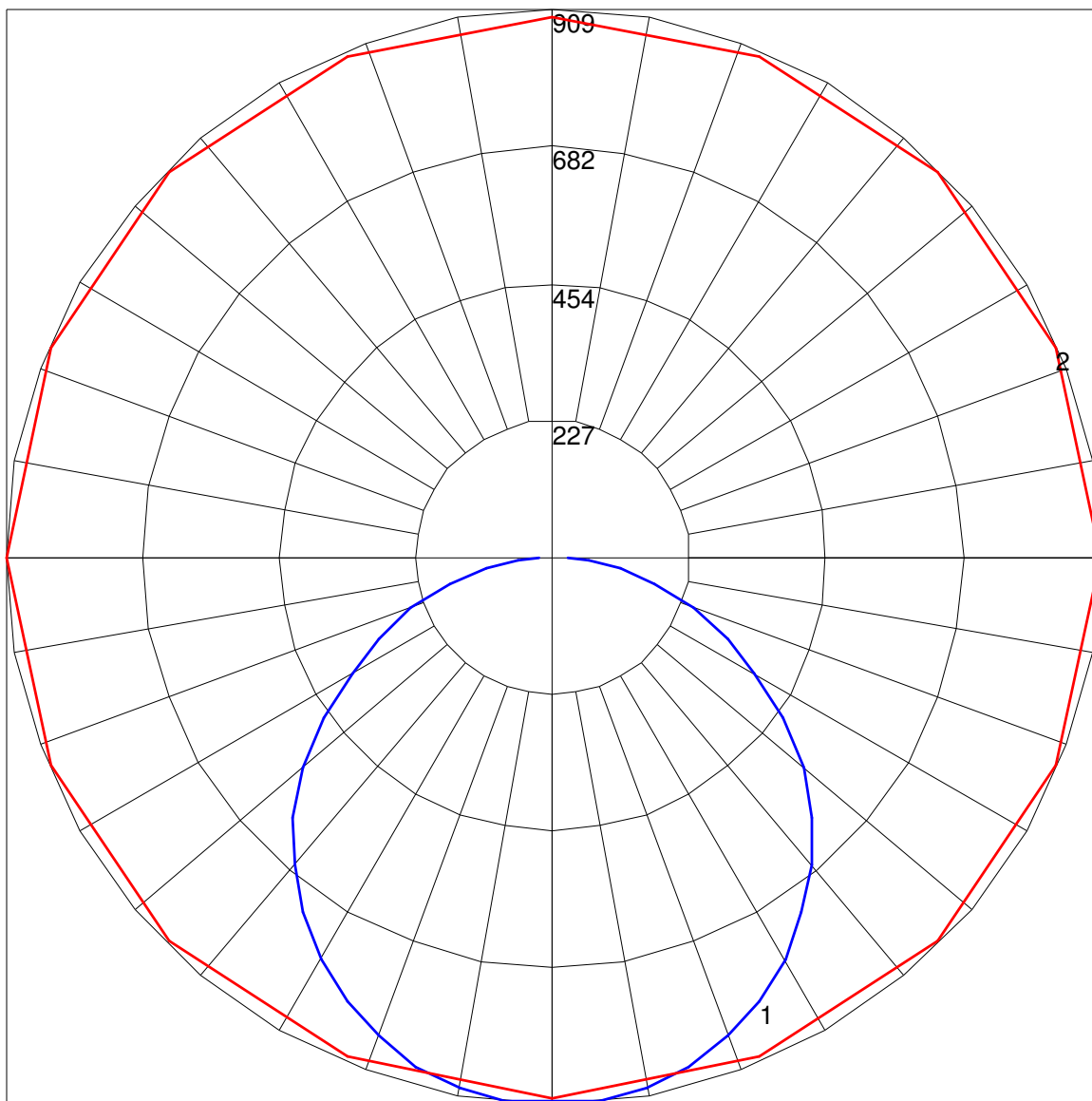
Reflectances

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	13.0	14.7	13.4	15.0	15.3	12.9	14.5	13.3	14.9	15.2
	3H	14.6	16.1	15.0	16.4	16.8	14.5	16.0	14.9	16.3	16.7
	4H	15.2	16.6	15.6	16.9	17.3	15.1	16.5	15.5	16.8	17.2
	6H	15.6	16.9	16.0	17.2	17.6	15.4	16.7	15.8	17.1	17.5
	8H	15.7	16.9	16.1	17.3	17.7	15.6	16.8	16.0	17.2	17.6
	12H	15.8	17.0	16.2	17.3	17.8	15.6	16.8	16.0	17.2	17.6
4H	2H	13.5	14.9	13.9	15.3	15.7	13.4	14.8	13.8	15.2	15.6
	3H	15.3	16.5	15.7	16.9	17.3	15.2	16.4	15.6	16.8	17.2
	4H	16.0	17.1	16.4	17.5	17.9	15.9	17.0	16.3	17.4	17.8
	6H	16.5	17.4	16.9	17.9	18.3	16.4	17.3	16.8	17.8	18.2
	8H	16.6	17.5	17.1	18.0	18.4	16.5	17.4	17.0	17.9	18.3
	12H	16.8	17.6	17.3	18.1	18.5	16.7	17.4	17.1	17.9	18.4
8H	4H	16.2	17.1	16.7	17.5	18.0	16.1	17.0	16.6	17.4	17.9
	6H	16.8	17.6	17.3	18.0	18.5	16.7	17.4	17.2	17.9	18.4
	8H	17.0	17.7	17.6	18.2	18.7	16.9	17.6	17.4	18.1	18.6
	12H	17.2	17.8	17.7	18.3	18.9	17.1	17.7	17.6	18.2	18.7
12H	4H	16.2	17.0	16.7	17.5	18.0	16.2	16.9	16.6	17.4	17.9
	6H	16.9	17.5	17.4	18.0	18.5	16.7	17.4	17.3	17.9	18.4
	8H	17.1	17.7	17.6	18.2	18.8	17.0	17.6	17.5	18.1	18.6

Maximum UGR = 18.9

POLAR GRAPH



Maximum Candela = 908.808 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.)