



## 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] 12-29-2020  
 [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	2623
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	104
Total Luminaire Watts	25.2
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	1978	1930	1944
55	1697	1674	1685
65	1382	1377	1382
75	975	981	946
85	472	447	464

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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>	909.825	909.825	909.825	909.825	909.825
<b>5</b>	915.146	909.825	908.761	904.505	904.505
<b>10</b>	902.376	900.248	898.120	893.863	893.863
<b>15</b>	884.286	883.222	881.094	878.966	877.902
<b>20</b>	854.491	853.427	852.363	848.106	851.298
<b>25</b>	818.311	821.503	815.118	816.182	816.182
<b>30</b>	778.938	781.066	773.617	777.874	775.746
<b>35</b>	726.796	726.796	724.668	723.604	720.411
<b>40</b>	671.462	667.205	665.077	664.013	662.949
<b>45</b>	615.063	604.422	600.165	601.230	604.422
<b>50</b>	548.023	544.831	532.062	537.382	538.446
<b>55</b>	468.214	477.791	461.829	467.150	465.022
<b>60</b>	389.469	400.110	388.405	392.661	393.726
<b>65</b>	321.365	320.301	320.301	321.365	321.365
<b>70</b>	252.197	245.812	250.069	244.748	246.877
<b>75</b>	177.709	174.516	178.773	169.196	172.388
<b>80</b>	113.861	113.861	110.669	108.541	109.605
<b>85</b>	59.591	60.655	56.399	58.527	58.527
<b>90</b>	24.475	23.411	26.603	25.539	27.667

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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	334.65	N.A.	12.80
0-30	711.57	N.A.	27.10
0-40	1164.77	N.A.	44.40
0-60	2049.15	N.A.	78.10
0-80	2553.34	N.A.	97.40
0-90	2622.52	N.A.	100.00
10-90	2536.18	N.A.	96.70
20-40	830.12	N.A.	31.70
20-50	1296.24	N.A.	49.40
40-70	1201.87	N.A.	45.80
60-80	504.20	N.A.	19.20
70-80	186.70	N.A.	7.10
80-90	69.17	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	2622.52	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	86.33
10-20	248.32
20-30	376.92
30-40	453.20
40-50	466.12
50-60	418.26
60-70	317.50
70-80	186.70
80-90	69.17
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**

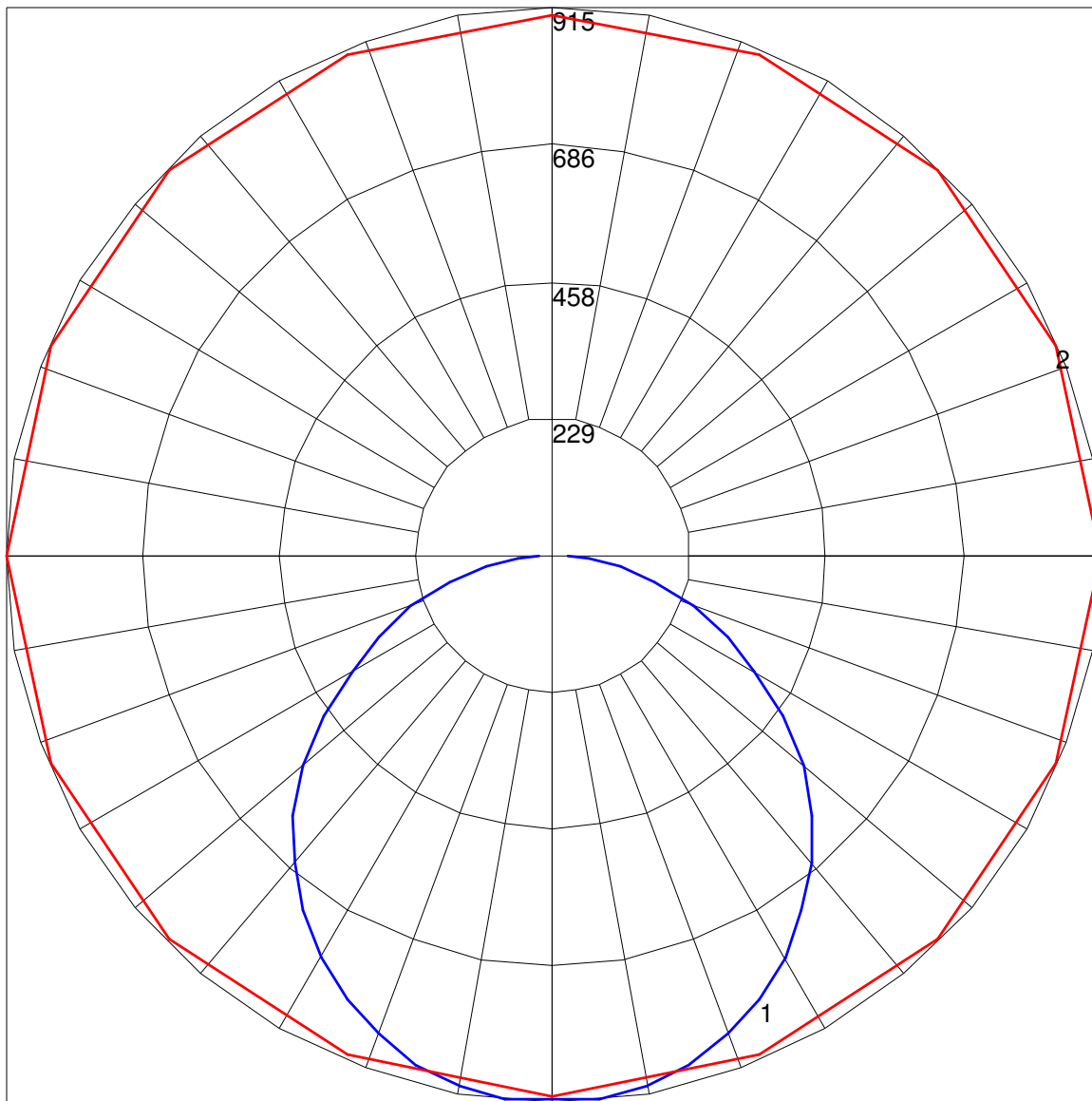
Reflectances

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	13.1	14.8	13.5	15.1	15.4	13.0	14.6	13.4	15.0	15.3
	3H	14.7	16.2	15.1	16.5	16.9	14.6	16.1	15.0	16.4	16.8
	4H	15.3	16.7	15.7	17.0	17.4	15.2	16.6	15.6	16.9	17.3
	6H	15.7	17.0	16.1	17.3	17.7	15.5	16.8	15.9	17.2	17.6
	8H	15.8	17.0	16.2	17.4	17.8	15.7	16.9	16.1	17.3	17.7
	12H	15.9	17.1	16.3	17.4	17.9	15.7	16.9	16.2	17.3	17.7
4H	2H	13.6	15.0	14.0	15.4	15.8	13.5	14.9	13.9	15.3	15.7
	3H	15.4	16.6	15.8	17.0	17.4	15.3	16.5	15.7	16.9	17.3
	4H	16.1	17.2	16.5	17.6	18.0	16.0	17.1	16.4	17.5	17.9
	6H	16.6	17.5	17.0	18.0	18.4	16.5	17.4	16.9	17.9	18.3
	8H	16.7	17.6	17.2	18.1	18.5	16.6	17.5	17.1	18.0	18.4
	12H	16.9	17.7	17.4	18.2	18.6	16.8	17.5	17.2	18.0	18.5
8H	4H	16.3	17.2	16.8	17.6	18.1	16.2	17.1	16.7	17.5	18.0
	6H	16.9	17.7	17.4	18.1	18.6	16.8	17.5	17.3	18.0	18.5
	8H	17.1	17.8	17.7	18.3	18.8	17.0	17.7	17.5	18.2	18.7
	12H	17.3	17.9	17.8	18.4	19.0	17.2	17.8	17.7	18.3	18.8
12H	4H	16.3	17.1	16.8	17.6	18.1	16.3	17.0	16.7	17.5	18.0
	6H	17.0	17.6	17.5	18.1	18.6	16.8	17.5	17.4	18.0	18.5
	8H	17.2	17.8	17.7	18.3	18.9	17.1	17.7	17.6	18.2	18.7

Maximum UGR = 19.0

POLAR GRAPH



Maximum Candela = 915.146 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.)