



**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : RNDX-3-L150-840-FXA-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] 9-23-2020  
 [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-L150-840-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	15469
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	113
Total Luminaire Watts	136.3
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)	2.81 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	8119	8199	8199
55	7649	7630	7642
65	6784	6867	6792
75	5421	5621	5347
85	3732	3811	3548

IES INDOOR REPORT  
 PHOTOMETRIC FILENAME : RNDX-3-L150-840-FXA-DIM-UNV\_.IES

CANDELA TABULATION

	<u>0.0</u>	<u>22.5</u>	<u>45.0</u>	<u>67.5</u>	<u>90.0</u>
0	5347.225	5347.225	5347.225	5347.225	5347.225
5	5328.634	5326.310	5323.986	5319.338	5326.310
10	5265.889	5268.213	5272.861	5258.918	5272.861
15	5152.020	5168.287	5168.287	5154.344	5168.287
20	4993.997	5017.235	5014.911	5014.911	5003.292
25	4794.144	4801.115	4805.763	4796.468	4798.791
30	4545.490	4557.109	4550.137	4531.546	4561.757
35	4252.682	4275.921	4243.387	4248.034	4278.245
40	3908.749	3938.960	3925.016	3938.960	3945.931
45	3536.930	3555.521	3571.788	3599.675	3571.788
50	3167.435	3146.520	3179.054	3211.588	3179.054
55	2774.701	2737.519	2767.729	2786.320	2772.377
60	2356.404	2314.574	2354.080	2365.700	2363.376
65	1891.630	1886.982	1914.869	1910.221	1893.954
70	1440.799	1459.390	1480.305	1459.390	1431.504
75	1010.883	1010.883	1048.065	1010.883	996.940
80	620.473	622.797	639.064	604.206	618.149
85	329.990	348.580	336.961	318.370	313.722
90	125.489	139.432	132.461	123.165	123.165
95	20.915	20.915	25.563	25.563	11.619
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

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : RNDX-3-L150-840-FXA-DIM-UNV\_.IES**

**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	1963.67	N.A.	12.70
0-30	4175.71	N.A.	27.00
0-40	6839.07	N.A.	44.20
0-60	12066.49	N.A.	78.00
0-80	15036.67	N.A.	97.20
0-90	15421.87	N.A.	99.70
10-90	14915.4	N.A.	96.40
20-40	4875.4	N.A.	31.50
20-50	7628.14	N.A.	49.30
40-70	7111.33	N.A.	46.00
60-80	2970.18	N.A.	19.20
70-80	1086.27	N.A.	7.00
80-90	385.20	N.A.	2.50
90-110	47.60	N.A.	0.30
90-120	47.60	N.A.	0.30
90-130	47.60	N.A.	0.30
90-150	47.60	N.A.	0.30
90-180	47.60	N.A.	0.30
110-180	0.00	N.A.	0.00
0-180	15469.47	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	506.47
10-20	1457.2
20-30	2212.04
30-40	2663.36
40-50	2752.74
50-60	2474.68
60-70	1883.91
70-80	1086.27
80-90	385.20
90-100	47.60
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

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : RNDX-3-L150-840-FXA-DIM-UNV\_.IES**

**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	122	122	122	122	119	119	119	119	114	114	114	109	109	109	104	104	104	102
1	111	106	101	97	108	104	99	96	99	96	93	95	92	90	91	89	87	85
2	101	92	85	79	98	90	84	78	87	81	76	83	78	74	80	76	73	70
3	92	81	72	66	89	79	71	65	76	69	64	73	67	63	71	66	62	59
4	84	72	62	56	82	70	62	55	68	60	54	65	59	54	63	57	53	51
5	77	64	55	48	75	63	54	47	61	53	47	58	52	46	57	51	46	44
6	71	58	48	42	69	57	48	41	55	47	41	53	46	41	51	45	40	38
7	66	52	43	37	64	51	43	37	50	42	36	48	41	36	47	40	36	34
8	62	48	39	33	60	47	38	33	45	38	32	44	37	32	43	37	32	30
9	57	44	35	29	56	43	35	29	42	34	29	41	34	29	40	33	29	27
10	54	40	32	27	53	40	32	27	39	31	26	38	31	26	37	31	26	24

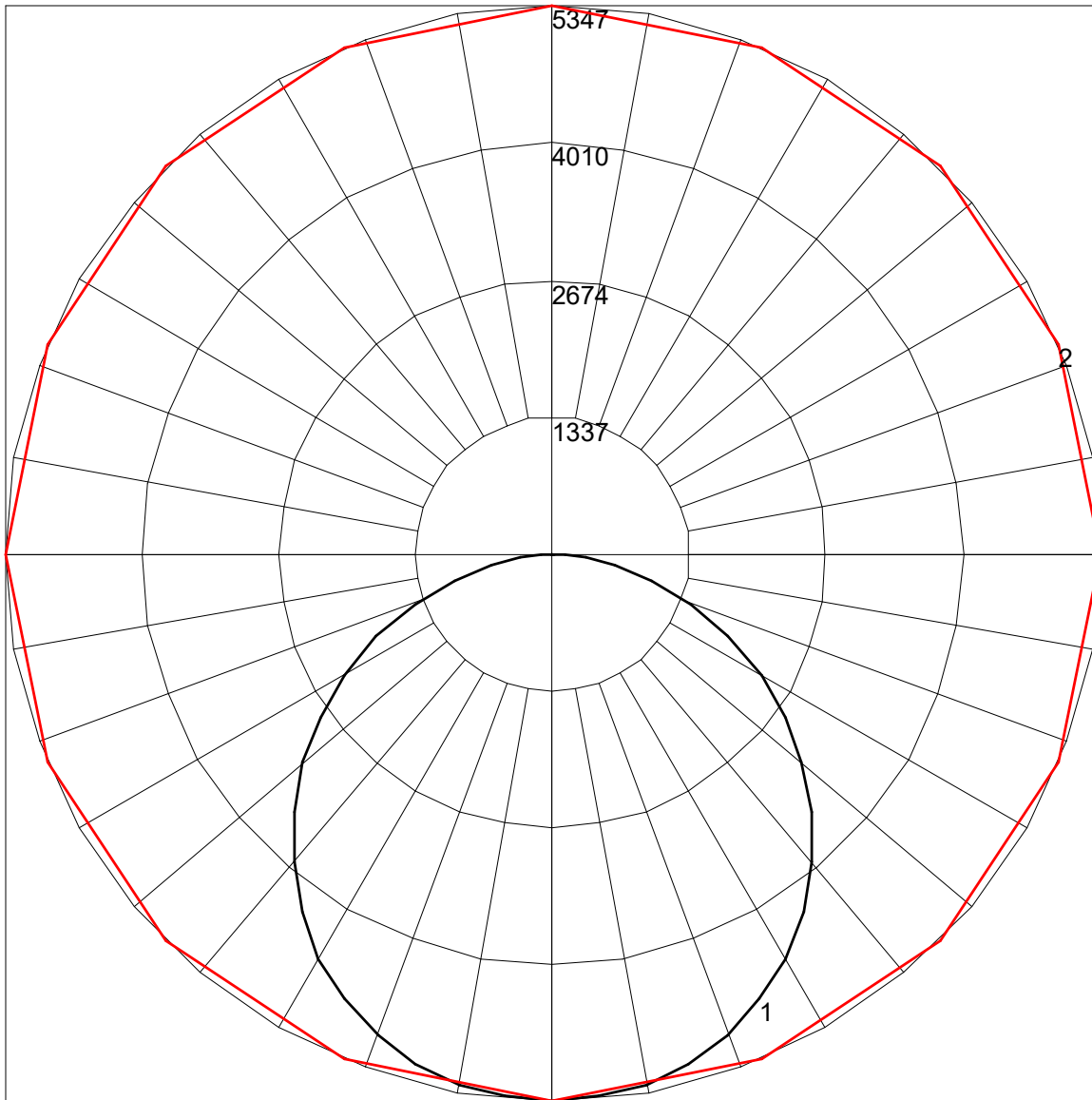
**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : RNDX-3-L150-840-FXA-DIM-UNV\_.IES**

**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	18.1	19.8	18.5	20.1	20.4	18.2	19.9	18.6	20.2	20.5
	3H	19.9	21.4	20.3	21.7	22.1	19.9	21.4	20.3	21.8	22.1
	4H	20.5	21.9	20.9	22.3	22.6	20.5	22.0	20.9	22.3	22.7
	6H	21.0	22.3	21.4	22.6	23.0	21.0	22.3	21.4	22.7	23.0
	8H	21.1	22.4	21.5	22.7	23.1	21.1	22.4	21.6	22.8	23.2
	12H	21.2	22.4	21.6	22.8	23.2	21.2	22.4	21.7	22.8	23.2
4H	2H	18.7	20.2	19.1	20.5	20.9	18.8	20.2	19.2	20.6	21.0
	3H	20.7	21.9	21.1	22.3	22.7	20.8	21.9	21.2	22.3	22.7
	4H	21.5	22.5	21.9	22.9	23.4	21.5	22.6	21.9	23.0	23.4
	6H	22.0	23.0	22.5	23.4	23.9	22.0	23.0	22.5	23.4	23.9
	8H	22.2	23.1	22.7	23.5	24.0	22.2	23.1	22.7	23.5	24.0
	12H	22.4	23.2	22.9	23.7	24.1	22.4	23.2	22.9	23.6	24.1
8H	4H	21.7	22.6	22.2	23.1	23.5	21.8	22.7	22.2	23.1	23.6
	6H	22.4	23.2	22.9	23.6	24.1	22.4	23.2	22.9	23.7	24.1
	8H	22.7	23.4	23.2	23.9	24.4	22.7	23.4	23.2	23.9	24.3
	12H	23.0	23.5	23.5	24.0	24.6	22.9	23.5	23.4	24.0	24.6
12H	4H	21.8	22.6	22.3	23.0	23.5	21.8	22.6	22.3	23.1	23.5
	6H	22.5	23.2	23.0	23.6	24.2	22.5	23.2	23.0	23.6	24.2
	8H	22.8	23.4	23.3	23.9	24.5	22.8	23.4	23.3	23.9	24.4

Maximum UGR = 24.6

POLAR GRAPH



Maximum Candela = 5347.225 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)  
# 2 - Horizontal Cone Through Vertical Angle (0) (Through Max. Cd.)