



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : RND-2-L45-835-FXA-DIM-UNV.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002  
 [TEST]GEN FROM BALLABS TEST NO. 18641.0  
 [TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC  
 [ISSUE DATE] 07-OCT-2018  
 [MANUFAC] WILLIAMS INDOOR  
 [OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO  
 [LUMINAIRE] 3-32LED 22"ARRAYS 2x2'RECESSED LUMINAIRE w/WHITE REFL  
 [MORE] ARRAYS ON WHITE INTERNAL REFLS & 2"DIA WHITE FROST ACRYLIC  
 [MORE] CONVEX LENS EVERLINE #D10CC5UNVT-C @ 873mA  
 [LUMCAT] RND-2-L45-835-FXA-DIM-UNV  
 [LAMPCAT] HLM 80 CRI 3500K CCT

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	4583
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	80
Total Luminaire Watts	57
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.26
Spacing Criterion (90-270)	1.26
Spacing Criterion (Diagonal)	1.36
Basic Luminous Shape	Circular w/ Sides
Luminous Length (0-180)	1.81 ft (Diameter)
Luminous Width (90-270)	1.81 ft (Diameter)
Luminous Height	0.10 ft

### LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	5836	5791	5814
55	5271	5366	5257
65	4705	4758	4653
75	3935	3908	3752
85	2737	2683	2683

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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>	1629.659	1629.659	1629.659	1629.659	1629.659
<b>5</b>	1633.780	1629.659	1625.539	1625.539	1621.418
<b>10</b>	1611.117	1609.057	1602.876	1604.936	1602.876
<b>15</b>	1571.972	1571.972	1567.852	1565.791	1565.791
<b>20</b>	1516.345	1516.345	1514.285	1512.225	1510.165
<b>25</b>	1452.478	1448.357	1450.417	1442.176	1448.357
<b>30</b>	1376.248	1365.947	1370.068	1357.706	1370.068
<b>35</b>	1281.477	1273.236	1273.236	1262.934	1277.356
<b>40</b>	1174.344	1170.223	1166.103	1155.801	1170.223
<b>45</b>	1063.090	1061.030	1054.849	1042.487	1058.970
<b>50</b>	935.354	937.415	937.415	935.354	933.294
<b>55</b>	801.438	811.739	815.860	813.800	799.378
<b>60</b>	681.943	681.943	690.184	681.943	671.642
<b>65</b>	552.148	548.027	558.328	550.087	545.967
<b>70</b>	426.472	414.111	434.713	422.352	418.231
<b>75</b>	311.098	296.676	309.038	300.797	296.676
<b>80</b>	195.724	189.543	189.543	181.302	185.423
<b>85</b>	105.073	100.952	103.013	98.892	103.013
<b>90</b>	45.326	43.265	37.085	37.085	32.964

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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	596.96	N.A.	13.00
0-30	1263.79	N.A.	27.60
0-40	2059.2	N.A.	44.90
0-60	3597.64	N.A.	78.50
0-80	4465.43	N.A.	97.40
0-90	4582.65	N.A.	100.00
10-90	4428.06	N.A.	96.60
20-40	1462.24	N.A.	31.90
20-50	2275.78	N.A.	49.70
40-70	2085.26	N.A.	45.50
60-80	867.79	N.A.	18.90
70-80	320.96	N.A.	7.00
80-90	117.23	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	4582.65	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	154.59
10-20	442.37
20-30	666.83
30-40	795.41
40-50	813.53
50-60	724.91
60-70	546.82
70-80	320.96
80-90	117.23
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

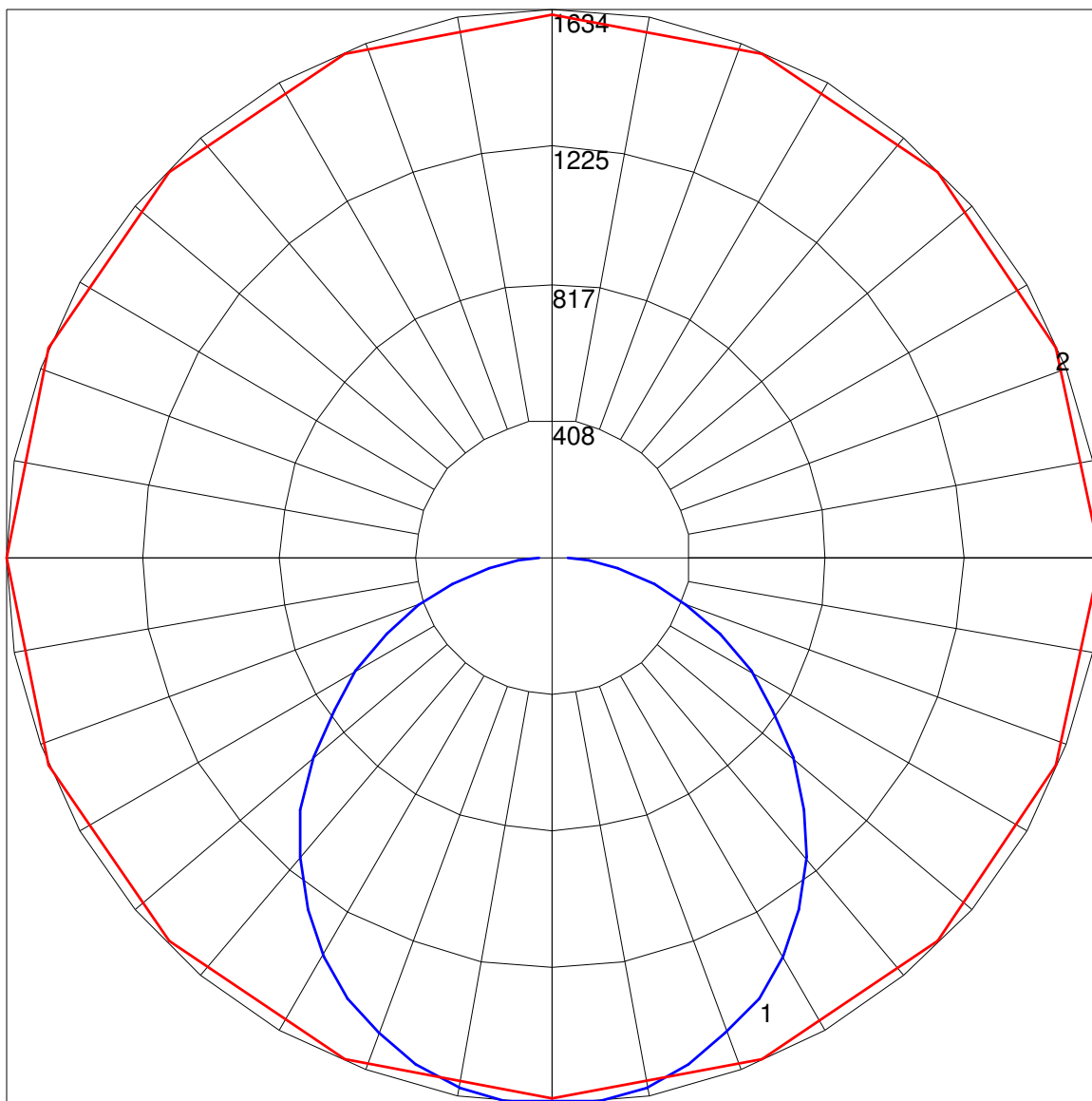
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**COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD**

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	104	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83
2	99	90	83	78	96	88	82	77	85	79	75	81	77	73	78	75	71	69
3	90	79	71	64	87	78	70	64	75	68	63	72	66	62	69	65	61	58
4	82	70	61	55	80	69	61	54	66	59	53	64	58	53	62	56	52	50
5	76	63	54	47	74	62	53	47	59	52	46	57	51	46	56	50	45	43
6	70	57	48	41	68	56	47	41	54	46	41	52	45	40	50	44	40	38
7	65	51	42	36	63	50	42	36	49	41	36	47	41	36	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	44	37	32	42	36	32	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	29	27
10	53	40	32	26	52	39	32	26	38	31	26	37	31	26	36	30	26	24

POLAR GRAPH



Maximum Candela = 1633.78 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.)