



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : 4AR-P10-835-POE-OW-OF-CS\_0 DEGREE TILT\_.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN FROM BALLABS TEST NO. 20445.0

[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC

[ISSUE DATE] 12-MAR-2020

[MANUFAC] WILLAIMS INDOOR

[OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO

[LUMINAIRE] GEN7 V13 LED 4" SHORT HEATSINK 4" RND ADJ DOWNLIGHT @ 0 TILT

[MORE] ACRYLIC WIDE TIR OPTIC & 4" OPEN ASYM SEMI-SPEC TRIM

[LUMCAT] 4AR-P10-835-PoE-OW-OF-CS\_0 DEGREE TILT

[\_SEARCH\_SOURCETYPE] LED

[\_SEARCH\_APPLICATION] Indoor, Classroom, Commercial, Industrial, Direct, Downlight

[\_SEARCH\_MOUNTING] Recessed

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	764
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	62
Total Luminaire Watts	12.3
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.76
Spacing Criterion (90-270)	0.76
Spacing Criterion (Diagonal)	0.64
Basic Luminous Shape	Circular
Luminous Length (0-180)	0.33 ft (Diameter)
Luminous Width (90-270)	0.33 ft (Diameter)
Luminous Height	0.00 ft

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

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	483	387	773
55	477	477	477
65	485	162	162
75	0	0	0
85	0	0	0

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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>	<u>112.5</u>	<u>135.0</u>	<u>157.5</u>	<u>180.0</u>
<b>0</b>	1484.817	1484.817	1484.817	1484.817	1484.817	1484.817	1484.817	1484.817	1484.817
<b>5</b>	1531.321	1528.000	1525.785	1523.017	1521.910	1524.124	1526.339	1531.875	1528.553
<b>10</b>	1582.808	1576.719	1572.290	1573.950	1577.272	1589.452	1596.095	1602.185	1603.292
<b>15</b>	1484.263	1467.101	1459.350	1462.119	1469.869	1500.319	1521.356	1524.678	1529.661
<b>20</b>	1002.611	961.090	971.055	923.443	982.127	951.678	1031.953	1053.545	1099.495
<b>25</b>	374.249	363.730	380.893	400.823	404.145	396.394	384.214	381.446	377.571
<b>30</b>	99.652	102.974	95.223	80.275	99.652	105.742	90.241	81.936	95.777
<b>35</b>	11.626	11.072	11.626	13.287	17.716	18.823	16.609	16.055	16.609
<b>40</b>	4.429	4.429	4.429	6.643	7.751	8.304	7.197	7.197	7.197
<b>45</b>	2.768	2.768	2.214	2.214	4.429	4.983	3.875	3.875	3.875
<b>50</b>	3.875	2.214	1.661	2.768	2.768	3.875	2.214	2.768	2.768
<b>55</b>	2.214	2.214	2.214	1.107	2.214	1.661	1.661	1.661	1.661
<b>60</b>	1.661	1.107	0.554	1.107	1.107	0.554	0.554	0.554	1.107
<b>65</b>	1.661	1.661	0.554	0.554	0.554	0.000	0.000	0.000	0.000
<b>70</b>	1.107	0.554	1.107	0.000	0.554	0.000	0.000	0.000	0.000
<b>75</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>80</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>85</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>90</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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Zone	Lumens	%Lamp	%Fixt
0-20	534.02	N.A.	69.90
0-30	739.18	N.A.	96.70
0-40	758.81	N.A.	99.30
0-60	763.51	N.A.	99.90
0-80	764.15	N.A.	100.00
0-90	764.15	N.A.	100.00
10-90	616.85	N.A.	80.70
20-40	224.79	N.A.	29.40
20-50	227.88	N.A.	29.80
40-70	5.25	N.A.	0.70
60-80	0.65	N.A.	0.10
70-80	0.09	N.A.	0.00
80-90	0.00	N.A.	0.00
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	764.15	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	147.31
10-20	386.72
20-30	205.15
30-40	19.64
40-50	3.08
50-60	1.61
60-70	0.56
70-80	0.09
80-90	0.00
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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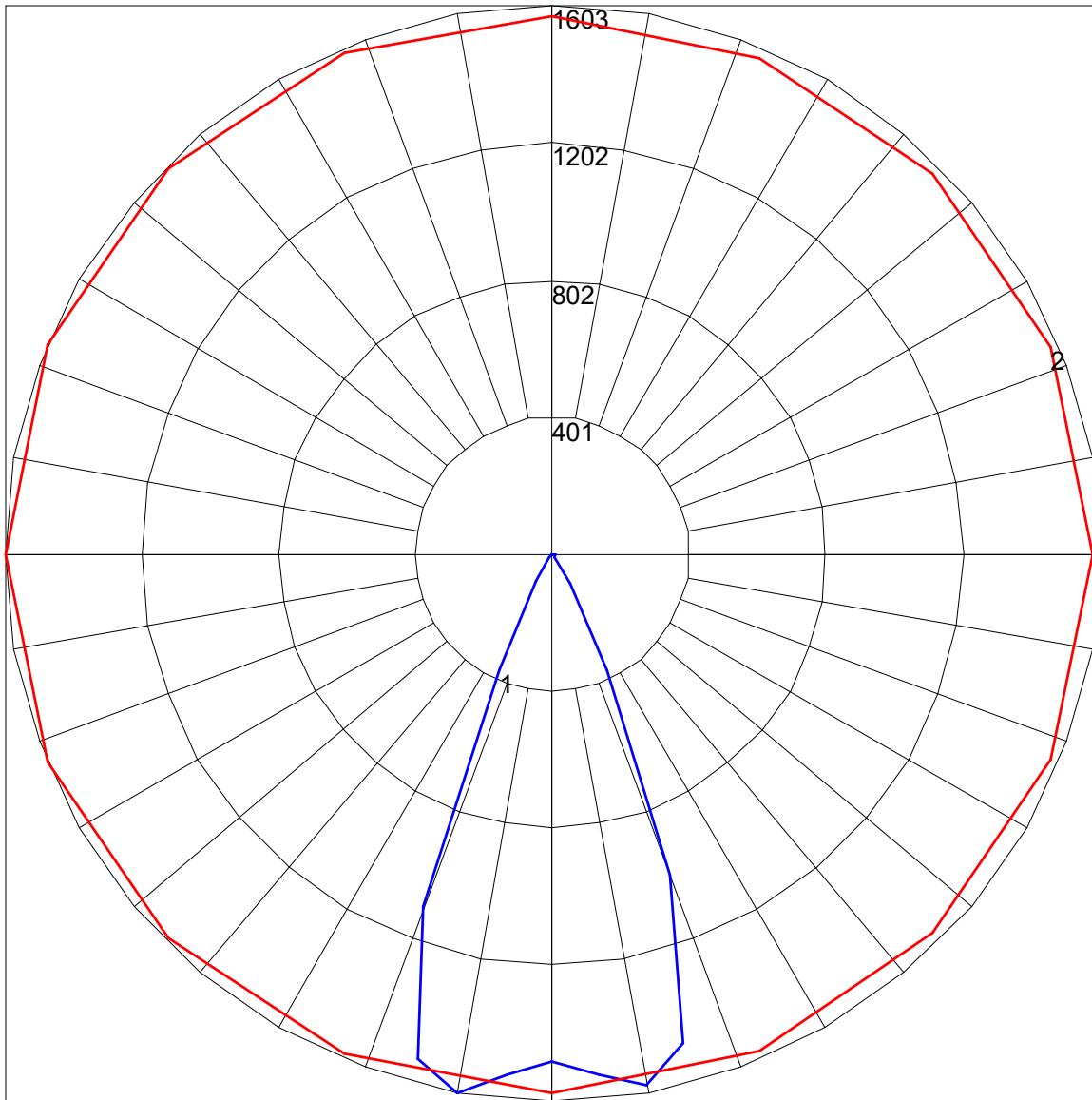
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## COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	137	137	137	137	134	134	134	134	128	128	128	123	123	123	118	118	118	115
1	132	129	127	125	129	127	125	123	122	121	119	118	117	116	114	113	112	110
2	127	123	119	116	125	121	117	115	117	114	112	114	112	110	111	109	107	106
3	123	117	112	109	120	115	111	108	112	109	106	110	107	104	107	105	103	101
4	118	111	106	102	116	110	105	102	108	104	101	106	102	100	104	101	99	97
5	114	106	101	97	112	105	101	97	104	99	96	102	98	95	100	97	94	93
6	110	102	97	93	109	101	96	92	100	95	92	98	94	91	97	93	91	89
7	106	98	92	89	105	97	92	88	96	91	88	95	91	88	93	90	87	86
8	103	94	89	85	101	93	88	85	92	88	84	91	87	84	90	87	84	83
9	99	90	85	82	98	90	85	81	89	84	81	88	84	81	87	84	81	80
10	96	87	82	78	95	87	82	78	86	81	78	85	81	78	84	81	78	77

POLAR GRAPH



Maximum Candela = 1603.292 Located At Horizontal Angle = 180, Vertical Angle = 10  
# 1 - Vertical Plane Through Horizontal Angles (180 - 0) (Through Max. Cd.)  
# 2 - Horizontal Cone Through Vertical Angle (10) (Through Max. Cd.)