



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : 4DS-L15-835-DIM-UNV-RW-OF-CS\_.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST]GEN FROM BALLABS TEST NO. 20321.0

[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC

[ISSUEDATE] 02-22-2023

[MANUFAC] WILLIAMS INDOOR

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

[LUMINAIRE] GEN7 V13 LED 4"SHORT HEATSINK 4"SQ CAST HOUSING DOWNLIGHT

[MORE] WHITE MIXING CHAMBER & 4"CAST WHITE REGRESS w/SOLITE LENS

[MORE] ADVANCE #XI025C070V054DSM1 @ 625mA

[LUMCAT] 4DS-L15-835-DIM-UNV-RW-OF-CS

[LAMPCAT] BXRE-35E2000

[\_SEARCH\_SOURCETYPE] LED

[\_SEARCH\_APPLICATION] Indoor, Classroom, Office, Downlight

[\_SEARCH\_MOUNTING] Recessed

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	1453
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	84
Total Luminaire Watts	17.4
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.02
Spacing Criterion (90-270)	1.02
Spacing Criterion (Diagonal)	1.06
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	0.33 ft
Luminous Width (90-270)	0.33 ft
Luminous Height	0.00 ft

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

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	27183	30316	27082
55	20929	20182	20555
65	13526	12681	13188
75	6074	6626	6350
85	3279	2459	3279

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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>	1108.907	1108.907	1108.907	1108.907	1108.907
<b>5</b>	1102.276	1102.276	1101.539	1103.013	1105.960
<b>10</b>	1081.645	1080.171	1085.329	1091.960	1096.381
<b>15</b>	1051.436	1050.699	1055.856	1064.698	1069.856
<b>20</b>	1011.648	1010.174	1016.805	1016.805	1010.911
<b>25</b>	886.389	912.914	952.702	921.019	883.442
<b>30</b>	581.347	661.660	831.865	720.605	581.347
<b>35</b>	330.830	371.355	610.820	419.985	331.567
<b>40</b>	237.991	256.412	349.250	272.622	244.623
<b>45</b>	198.203	204.098	221.045	211.466	197.467
<b>50</b>	162.099	165.047	164.310	162.099	156.942
<b>55</b>	123.785	126.732	119.364	121.575	121.575
<b>60</b>	89.891	89.891	84.734	86.944	88.418
<b>65</b>	58.945	59.682	55.261	57.472	57.472
<b>70</b>	29.473	32.420	32.420	31.683	30.209
<b>75</b>	16.210	16.210	17.684	16.210	16.947
<b>80</b>	10.315	10.315	7.368	8.842	8.842
<b>85</b>	2.947	2.210	2.210	2.210	2.947
<b>90</b>	0.000	0.000	0.000	0.000	0.000

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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	402.72	N.A.	27.70
0-30	809.91	N.A.	55.70
0-40	1095.64	N.A.	75.40
0-60	1371.77	N.A.	94.40
0-80	1449.19	N.A.	99.70
0-90	1452.95	N.A.	100.00
10-90	1348.19	N.A.	92.80
20-40	692.92	N.A.	47.70
20-50	858.41	N.A.	59.10
40-70	334.06	N.A.	23.00
60-80	77.42	N.A.	5.30
70-80	19.49	N.A.	1.30
80-90	3.76	N.A.	0.30
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	1452.95	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	104.76
10-20	297.96
20-30	407.20
30-40	285.72
40-50	165.49
50-60	110.64
60-70	57.93
70-80	19.49
80-90	3.76
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	112	109	106	103	110	107	104	101	102	100	98	99	97	95	95	94	93	91
2	105	99	94	90	103	97	93	89	94	90	87	91	88	85	88	86	83	82
3	98	91	85	80	96	89	84	79	86	82	78	84	80	77	82	78	75	74
4	92	83	77	72	90	82	76	71	80	74	70	78	73	69	76	72	69	67
5	87	77	70	65	85	76	69	64	74	68	64	72	67	63	70	66	63	61
6	81	71	64	59	80	70	64	59	69	63	58	67	62	58	66	61	57	56
7	77	66	59	54	75	65	59	54	64	58	54	63	57	53	61	57	53	51
8	72	61	55	50	71	61	54	50	60	54	49	59	53	49	58	53	49	47
9	69	57	51	46	67	57	50	46	56	50	46	55	50	46	54	49	46	44
10	65	54	47	43	64	53	47	43	53	47	43	52	46	43	51	46	42	41

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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

X=2H	Y=2H	20.2	21.4	20.5	21.7	22.0	19.9	21.2	20.3	21.5	21.8
	3H	20.8	21.9	21.2	22.2	22.6	20.6	21.7	21.0	22.0	22.4
	4H	20.9	21.9	21.3	22.3	22.7	20.7	21.7	21.1	22.1	22.5
	6H	21.0	21.9	21.4	22.3	22.7	20.8	21.7	21.2	22.1	22.5
	8H	21.0	21.9	21.4	22.2	22.7	20.8	21.6	21.2	22.0	22.4
	12H	20.9	21.8	21.4	22.2	22.6	20.7	21.6	21.2	22.0	22.4

UGR Viewed Endwise

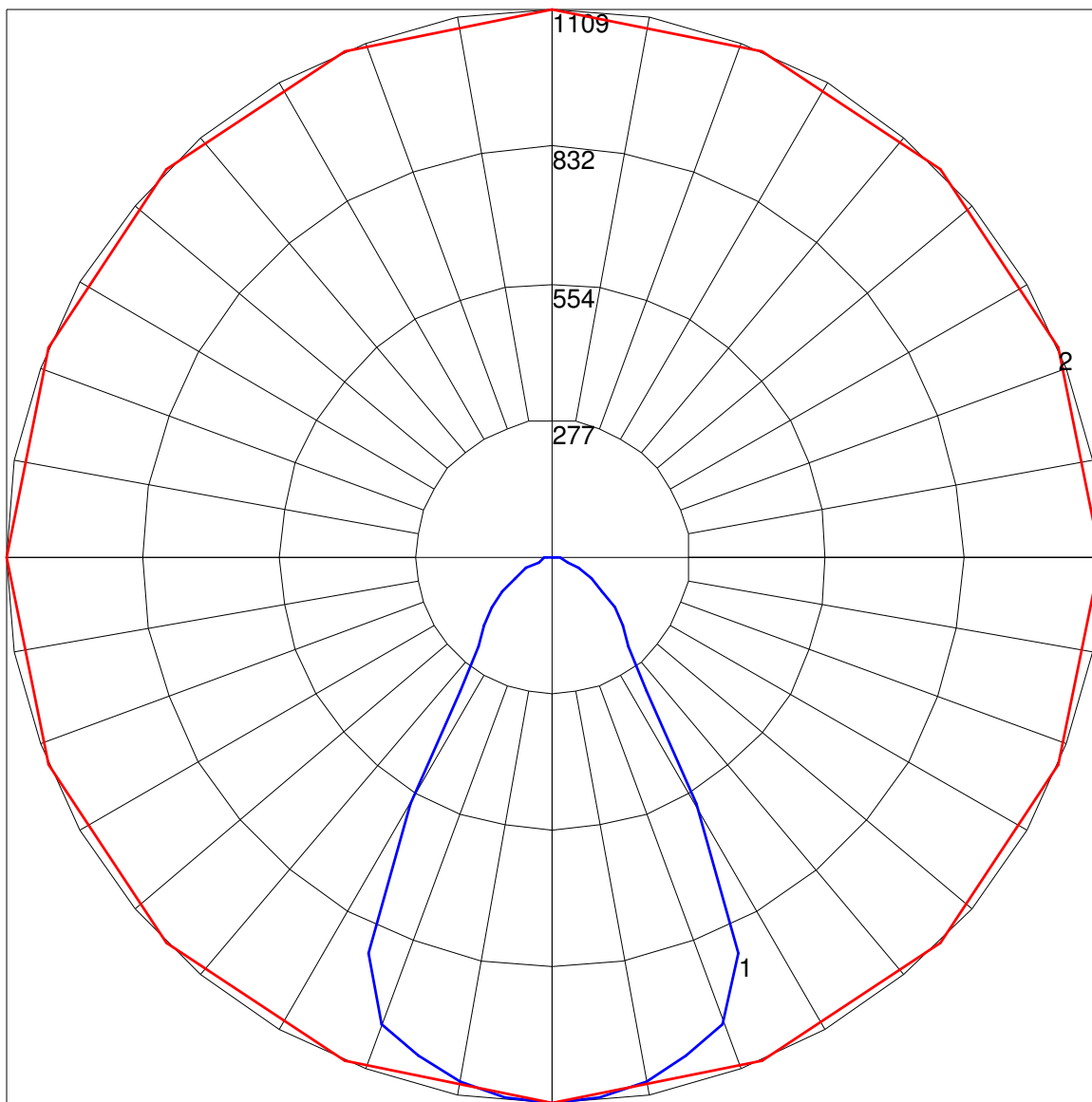
4H	2H	20.4	21.4	20.8	21.7	22.1	20.2	21.2	20.6	21.5	21.9
	3H	21.1	22.0	21.5	22.4	22.8	21.0	21.8	21.4	22.2	22.6
	4H	21.3	22.0	21.7	22.4	22.9	21.1	21.8	21.5	22.3	22.7
	6H	21.4	22.0	21.9	22.5	22.9	21.2	21.8	21.7	22.3	22.8
	8H	21.4	22.0	21.9	22.4	22.9	21.2	21.8	21.7	22.2	22.7
	12H	21.4	21.9	21.9	22.4	22.9	21.2	21.7	21.7	22.2	22.7

8H	4H	21.2	21.8	21.7	22.3	22.8	21.1	21.7	21.6	22.1	22.6
	6H	21.4	21.9	21.9	22.4	22.9	21.2	21.7	21.7	22.2	22.7
	8H	21.4	21.9	22.0	22.4	22.9	21.2	21.7	21.8	22.2	22.7
	12H	21.5	21.8	22.0	22.3	22.9	21.3	21.6	21.8	22.1	22.7

12H	4H	21.2	21.7	21.7	22.2	22.7	21.1	21.6	21.5	22.1	22.5
	6H	21.4	21.8	21.9	22.3	22.8	21.2	21.6	21.7	22.1	22.6
	8H	21.4	21.8	22.0	22.3	22.9	21.2	21.6	21.8	22.1	22.7

Maximum UGR = 22.9

POLAR GRAPH



Maximum Candela = 1108.907 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)  
# 2 - Horizontal Cone Through Vertical Angle (0) (Through Max. Cd.)