



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 4DS-L15-835-DIM-UNV-LM-OF-CS_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST]GEN FROM BALLABS TEST NO. 20318.0
 [TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC
 [ISSUEDATE] 09-01-2020
 [MANUFAC] WILLIAMS INDOOR
 [OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO
 [LUMINAIRE] GEN7 V13 LED 4"SHORT HEATSINK 4"SQ CAST HOUSING DOWNLIGHT
 [MORE] ACRYLIC MED TIR OPTIC & 4"CAST CLR SPECULAR FLUSH w/SOLITE LENS
 [MORE] ADVANCE # XI025C070V054DSM1 @ 625mA
 [LUMCAT] 4DS-L15-835-DIM-UNV-LM-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	1666
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	96
Total Luminaire Watts	17.4
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.56
Spacing Criterion (90-270)	0.56
Spacing Criterion (Diagonal)	0.54
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	7809	8519	7302
55	5001	5251	5001
65	4242	4072	4242
75	2771	2771	2494
85	1646	822	1646

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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>
0	4471.506	4471.506	4471.506	4471.506	4471.506
5	4308.825	4293.296	4281.465	4259.281	4261.499
10	3698.771	3695.814	3667.714	3634.439	3601.163
15	2582.189	2653.177	2597.718	2565.921	2534.864
20	1436.028	1458.952	1484.833	1419.760	1352.470
25	701.007	726.888	729.846	676.605	632.976
30	330.538	343.109	346.806	311.312	295.044
35	158.244	170.815	181.907	164.160	140.497
40	86.517	92.432	98.348	87.996	78.383
45	56.938	58.417	62.115	56.938	53.241
50	40.670	41.410	42.149	40.670	38.452
55	29.578	31.057	31.057	30.318	29.578
60	24.402	24.402	23.663	22.923	22.923
65	18.486	18.486	17.747	17.747	18.486
70	11.831	11.831	11.831	11.831	11.092
75	7.395	7.395	7.395	7.395	6.655
80	4.437	4.437	3.697	4.437	3.697
85	1.479	2.218	0.739	1.479	1.479
90	0.000	0.000	0.000	0.739	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	1092.21	N.A.	65.60
0-30	1446.78	N.A.	86.80
0-40	1562.54	N.A.	93.80
0-60	1638.1	N.A.	98.30
0-80	1663.86	N.A.	99.90
0-90	1665.85	N.A.	100.00
10-90	1277.13	N.A.	76.70
20-40	470.32	N.A.	28.20
20-50	517.83	N.A.	31.10
40-70	93.28	N.A.	5.60
60-80	25.76	N.A.	1.50
70-80	8.04	N.A.	0.50
80-90	1.99	N.A.	0.10
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	1665.85	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	388.72
10-20	703.49
20-30	354.57
30-40	115.76
40-50	47.51
50-60	28.06
60-70	17.72
70-80	8.04
80-90	1.99
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	114	112	110	108	112	110	108	106	106	104	103	102	101	100	98	98	97	95
2	110	105	102	99	107	104	100	98	100	98	96	97	95	94	95	93	92	90
3	105	100	95	92	103	98	94	91	96	92	90	93	91	88	91	89	87	86
4	101	95	90	86	99	94	89	86	91	88	85	90	86	84	88	85	83	82
5	97	90	85	82	96	89	85	81	88	84	81	86	83	80	85	82	79	78
6	94	86	81	78	92	85	81	77	84	80	77	83	79	76	82	78	76	75
7	90	83	78	74	89	82	77	74	81	77	74	80	76	73	79	75	73	72
8	87	79	74	71	86	79	74	71	78	74	71	77	73	70	76	73	70	69
9	84	76	71	68	83	76	71	68	75	71	68	74	70	68	73	70	67	66
10	81	73	69	66	80	73	69	65	72	68	65	72	68	65	71	67	65	64

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UGR TABLE - CORRECTED

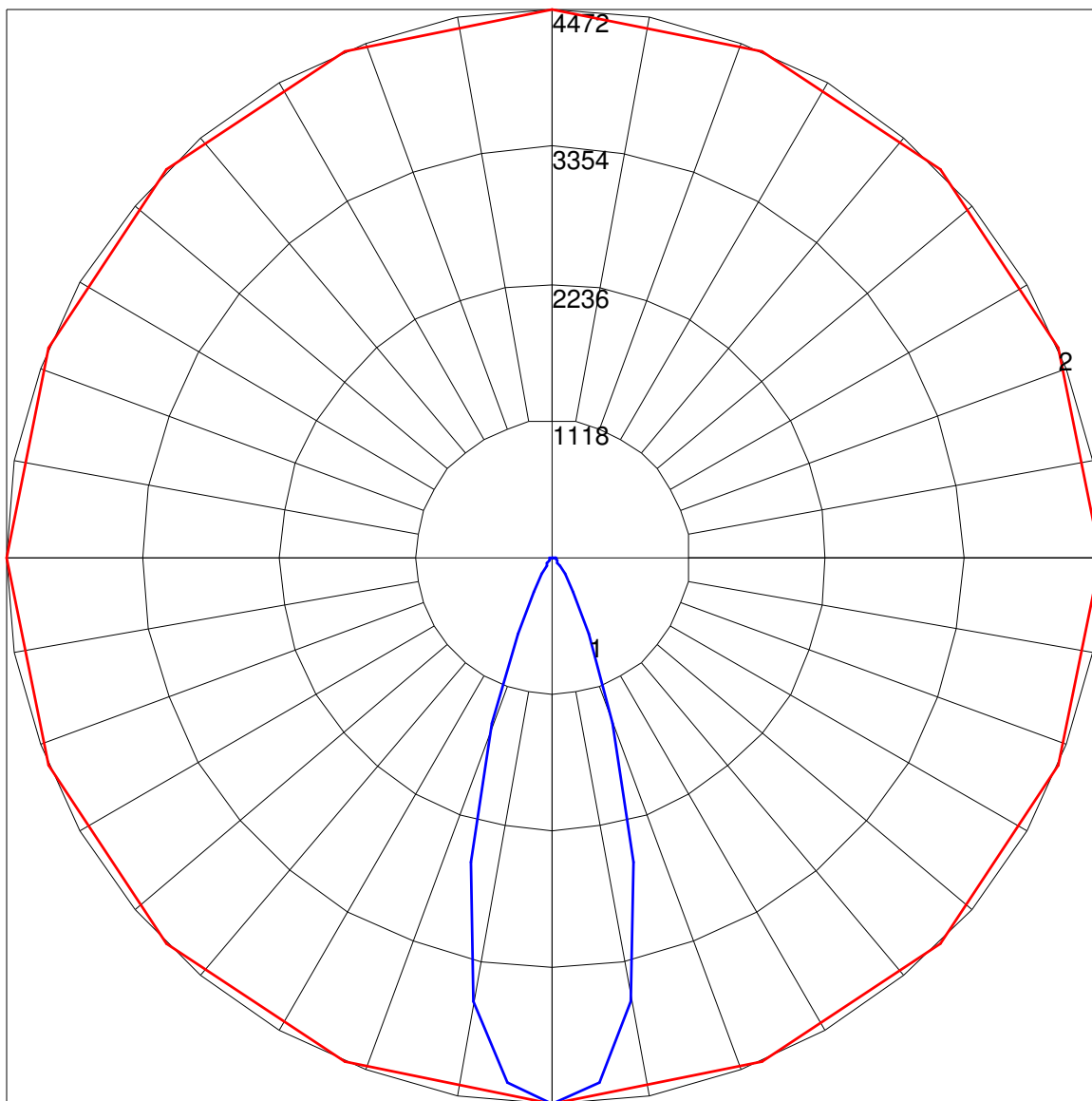
Reflectances

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	10.6	11.6	11.0	11.9	12.2	10.3	11.3	10.7	11.6	11.9
	3H	11.8	12.6	12.2	13.0	13.3	11.5	12.4	11.9	12.7	13.1
	4H	12.1	12.9	12.5	13.3	13.6	11.8	12.6	12.2	13.0	13.4
	6H	12.3	13.1	12.8	13.4	13.8	12.0	12.7	12.4	13.1	13.5
	8H	12.4	13.1	12.8	13.5	13.9	12.0	12.7	12.5	13.1	13.5
	12H	12.4	13.0	12.8	13.4	13.9	12.1	12.7	12.5	13.1	13.5
4H	2H	10.9	11.7	11.3	12.1	12.5	10.7	11.5	11.1	11.9	12.3
	3H	12.3	12.9	12.7	13.3	13.7	12.1	12.7	12.5	13.1	13.5
	4H	12.7	13.3	13.1	13.7	14.1	12.5	13.1	12.9	13.5	13.9
	6H	13.0	13.5	13.5	14.0	14.4	12.8	13.3	13.2	13.7	14.2
	8H	13.1	13.6	13.6	14.0	14.5	12.8	13.3	13.3	13.7	14.2
	12H	13.1	13.5	13.6	14.0	14.5	12.9	13.3	13.4	13.7	14.2
8H	4H	12.8	13.2	13.2	13.7	14.1	12.6	13.0	13.1	13.5	14.0
	6H	13.2	13.5	13.7	14.0	14.5	13.0	13.3	13.5	13.8	14.3
	8H	13.3	13.7	13.9	14.2	14.7	13.1	13.4	13.6	13.9	14.4
	12H	13.5	13.7	14.0	14.2	14.8	13.2	13.4	13.7	13.9	14.5
12H	4H	12.7	13.1	13.2	13.6	14.1	12.5	12.9	13.0	13.4	13.9
	6H	13.2	13.5	13.7	14.0	14.5	12.9	13.3	13.5	13.7	14.3
	8H	13.4	13.6	13.9	14.1	14.7	13.1	13.4	13.6	13.9	14.5

Maximum UGR = 14.8

POLAR GRAPH



Maximum Candela = 4471.506 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.)