



IES INDOOR REPORT
PHOTOMETRIC FILENAME : 4DS-L10-835-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-L10-835-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	986
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	39
Total Luminaire Watts	25
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	18446	20572	18378
55	14202	13695	13949
65	9179	8605	8949
75	4122	4496	4309
85	2225	1669	2225

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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	752.5	752.5	752.5	752.5	752.5
5	748.0	748.0	747.5	748.5	750.5
10	734.0	733.0	736.5	741.0	744.0
15	713.5	713.0	716.5	722.5	726.0
20	686.5	685.5	690.0	690.0	686.0
25	601.5	619.5	646.5	625.0	599.5
30	394.5	449.0	564.5	489.0	394.5
35	224.5	252.0	414.5	285.0	225.0
40	161.5	174.0	237.0	185.0	166.0
45	134.5	138.5	150.0	143.5	134.0
50	110.0	112.0	111.5	110.0	106.5
55	84.0	86.0	81.0	82.5	82.5
60	61.0	61.0	57.5	59.0	60.0
65	40.0	40.5	37.5	39.0	39.0
70	20.0	22.0	22.0	21.5	20.5
75	11.0	11.0	12.0	11.0	11.5
80	7.0	7.0	5.0	6.0	6.0
85	2.0	1.5	1.5	1.5	2.0
90	0.0	0.0	0.0	0.0	0.0

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	273.28	N.A.	27.70
0-30	549.60	N.A.	55.70
0-40	743.49	N.A.	75.40
0-60	930.88	N.A.	94.40
0-80	983.41	N.A.	99.70
0-90	985.96	N.A.	100.00
10-90	914.88	N.A.	92.80
20-40	470.21	N.A.	47.70
20-50	582.51	N.A.	59.10
40-70	226.69	N.A.	23.00
60-80	52.54	N.A.	5.30
70-80	13.23	N.A.	1.30
80-90	2.55	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	985.96	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	71.09
10-20	202.19
20-30	276.32
30-40	193.89
40-50	112.30
50-60	75.08
60-70	39.31
70-80	13.23
80-90	2.55
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

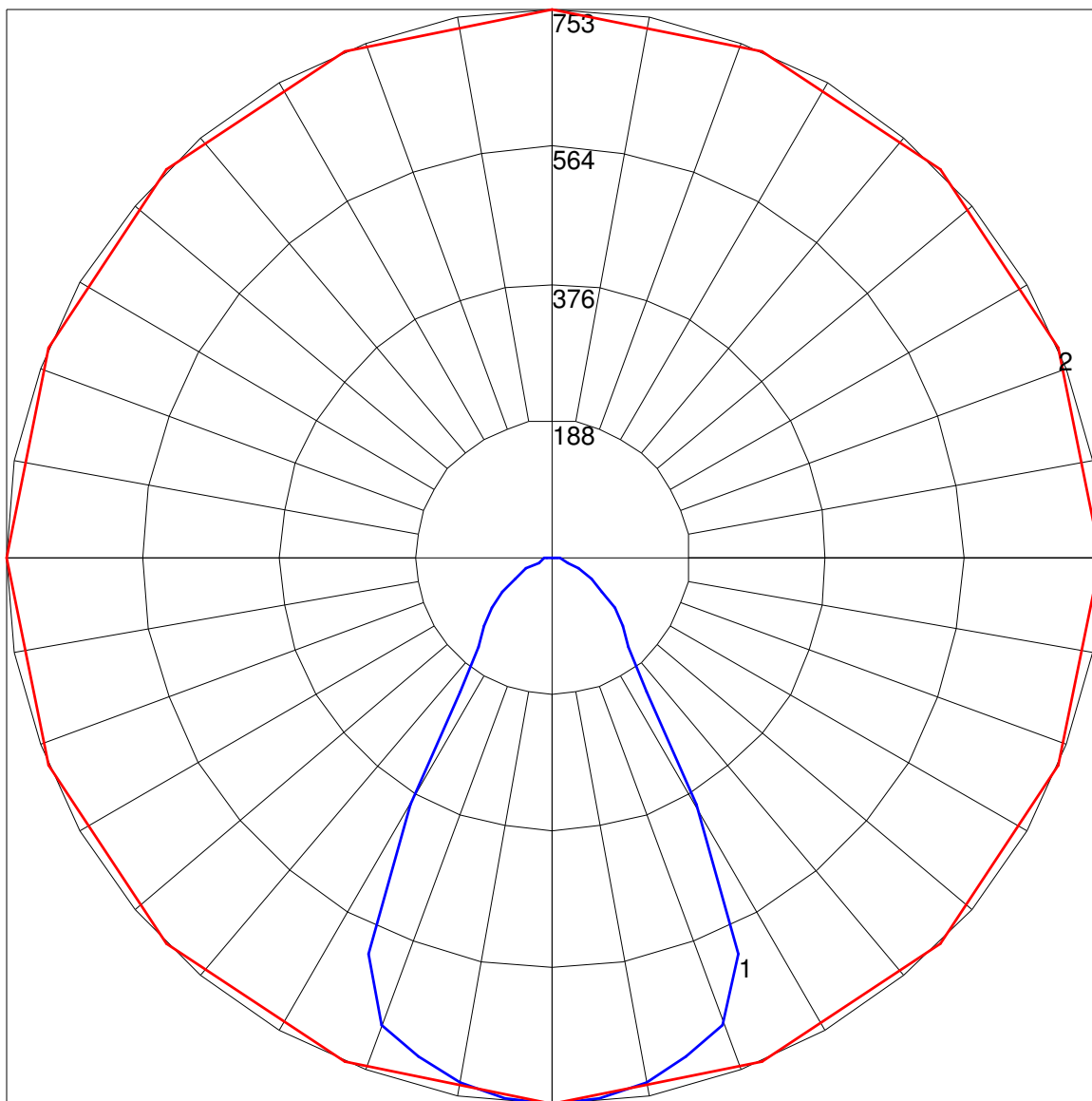
Reflectances

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					UGR Viewed Endwise				
X=2H	Y=2H	18.9	20.1	19.3	20.4	20.7	18.6	19.9	19.0	20.2	20.5
	3H	19.5	20.6	19.9	20.9	21.3	19.3	20.4	19.7	20.7	21.1
	4H	19.6	20.6	20.0	21.0	21.4	19.4	20.4	19.8	20.8	21.2
	6H	19.7	20.6	20.1	21.0	21.4	19.5	20.4	19.9	20.8	21.2
	8H	19.7	20.6	20.1	20.9	21.4	19.5	20.3	19.9	20.7	21.1
	12H	19.7	20.5	20.1	20.9	21.3	19.5	20.3	19.9	20.7	21.1
4H	2H	19.1	20.1	19.5	20.4	20.8	18.9	19.9	19.3	20.2	20.6
	3H	19.8	20.7	20.2	21.1	21.5	19.7	20.5	20.1	20.9	21.3
	4H	20.0	20.7	20.4	21.1	21.6	19.8	20.5	20.2	21.0	21.4
	6H	20.1	20.7	20.6	21.2	21.6	19.9	20.5	20.4	21.0	21.5
	8H	20.1	20.7	20.6	21.1	21.6	19.9	20.5	20.4	20.9	21.4
	12H	20.1	20.6	20.6	21.1	21.6	19.9	20.4	20.4	20.9	21.4
8H	4H	20.0	20.5	20.4	21.0	21.5	19.8	20.4	20.3	20.8	21.3
	6H	20.1	20.6	20.6	21.1	21.6	19.9	20.4	20.4	20.9	21.4
	8H	20.1	20.6	20.7	21.1	21.6	19.9	20.4	20.5	20.9	21.4
	12H	20.2	20.5	20.7	21.0	21.6	20.0	20.3	20.5	20.8	21.4
12H	4H	19.9	20.4	20.4	20.9	21.4	19.8	20.3	20.2	20.8	21.2
	6H	20.1	20.5	20.6	21.0	21.5	19.9	20.3	20.4	20.8	21.3
	8H	20.1	20.5	20.7	21.0	21.6	19.9	20.3	20.5	20.8	21.4

Maximum UGR = 21.6

POLAR GRAPH



Maximum Candela = 752.5 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.)