



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 4DS-L10-840-DIM-UNV-RM-OF-WH_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST]GEN FROM BALLABS TEST NO. 20323.0
 [TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC
 [ISSUEDATE] 01-20-2022
 [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 DIST TIR OPTIC & 4"CAST WHITE REGRESS w/SOLITE
 [MORE] LENS ADVANCE #XI025C070V054DSM1 @ 625MA
 [LUMCAT] 4DS-L10-840-DIM1-UNV-RM-OF-WH
 [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	1122
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	93
Total Luminaire Watts	12
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.56
Spacing Criterion (90-270)	0.56
Spacing Criterion (Diagonal)	0.56
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	4227	5474	4365
55	2904	2990	2733
65	1971	1855	1971
75	757	568	568
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>
0	2998.019	2998.019	2998.019	2998.019	2998.019
5	2891.416	2868.176	2857.566	2846.451	2841.399
10	2452.374	2461.468	2440.754	2438.227	2412.461
15	1761.728	1740.508	1752.129	1758.697	1716.763
20	984.688	985.193	1019.044	1043.295	987.720
25	476.429	480.976	509.269	507.248	486.534
30	213.711	225.837	248.572	249.077	234.931
35	94.983	104.077	128.833	123.275	105.593
40	49.512	53.049	70.227	63.153	55.575
45	30.819	32.335	39.913	35.871	31.829
50	22.735	22.735	24.756	23.746	22.230
55	17.178	17.683	17.683	16.673	16.167
60	12.125	12.125	11.115	11.620	11.115
65	8.589	8.589	8.084	8.589	8.589
70	4.042	4.042	3.537	4.042	3.537
75	2.021	2.021	1.516	3.031	1.516
80	1.010	1.010	1.010	1.516	1.010
85	0.000	0.000	0.000	0.000	0.000
90	0.000	0.000	0.000	0.000	0.000

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Zone	Lumens	%Lamp	%Fixt
0-20	735.47	N.A.	65.60
0-30	985.72	N.A.	87.90
0-40	1066.42	N.A.	95.10
0-60	1111.2	N.A.	99.00
0-80	1121.62	N.A.	100.00
0-90	1121.93	N.A.	100.00
10-90	862.20	N.A.	76.80
20-40	330.96	N.A.	29.50
20-50	360.25	N.A.	32.10
40-70	52.78	N.A.	4.70
60-80	10.41	N.A.	0.90
70-80	2.41	N.A.	0.20
80-90	0.31	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	1121.93	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	259.73
10-20	475.74
20-30	250.25
30-40	80.70
40-50	29.30
50-60	15.49
60-70	8.00
70-80	2.41
80-90	0.31
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	99	98	97	95
2	110	106	102	99	108	104	101	98	101	98	96	98	96	94	95	94	92	91
3	105	100	96	93	104	99	95	92	96	93	90	94	91	89	92	89	88	86
4	101	95	90	87	100	94	90	86	92	88	85	90	87	84	88	86	84	82
5	98	91	86	82	96	90	85	82	88	84	81	87	83	81	85	82	80	79
6	94	87	82	78	93	86	81	78	85	80	77	83	80	77	82	79	76	75
7	91	83	78	75	89	82	78	74	81	77	74	80	76	74	79	76	73	72
8	87	80	75	71	86	79	75	71	78	74	71	77	73	71	76	73	70	69
9	84	77	72	69	83	76	72	68	75	71	68	75	71	68	74	70	68	67
10	82	74	69	66	81	73	69	66	73	69	66	72	68	66	71	68	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

X=2H	Y=2H	7.7	8.6	8.0	8.9	9.2	7.3	8.2	7.6	8.5	8.8
	3H	8.2	9.1	8.6	9.4	9.8	7.9	8.7	8.3	9.0	9.4
	4H	8.3	9.1	8.7	9.4	9.8	7.9	8.7	8.3	9.1	9.5
	6H	8.3	9.0	8.7	9.3	9.7	8.0	8.6	8.4	9.0	9.4
	8H	8.2	8.9	8.7	9.3	9.7	7.9	8.6	8.3	9.0	9.4
	12H	8.2	8.8	8.6	9.2	9.6	7.9	8.5	8.3	8.9	9.3

UGR Viewed Endwise

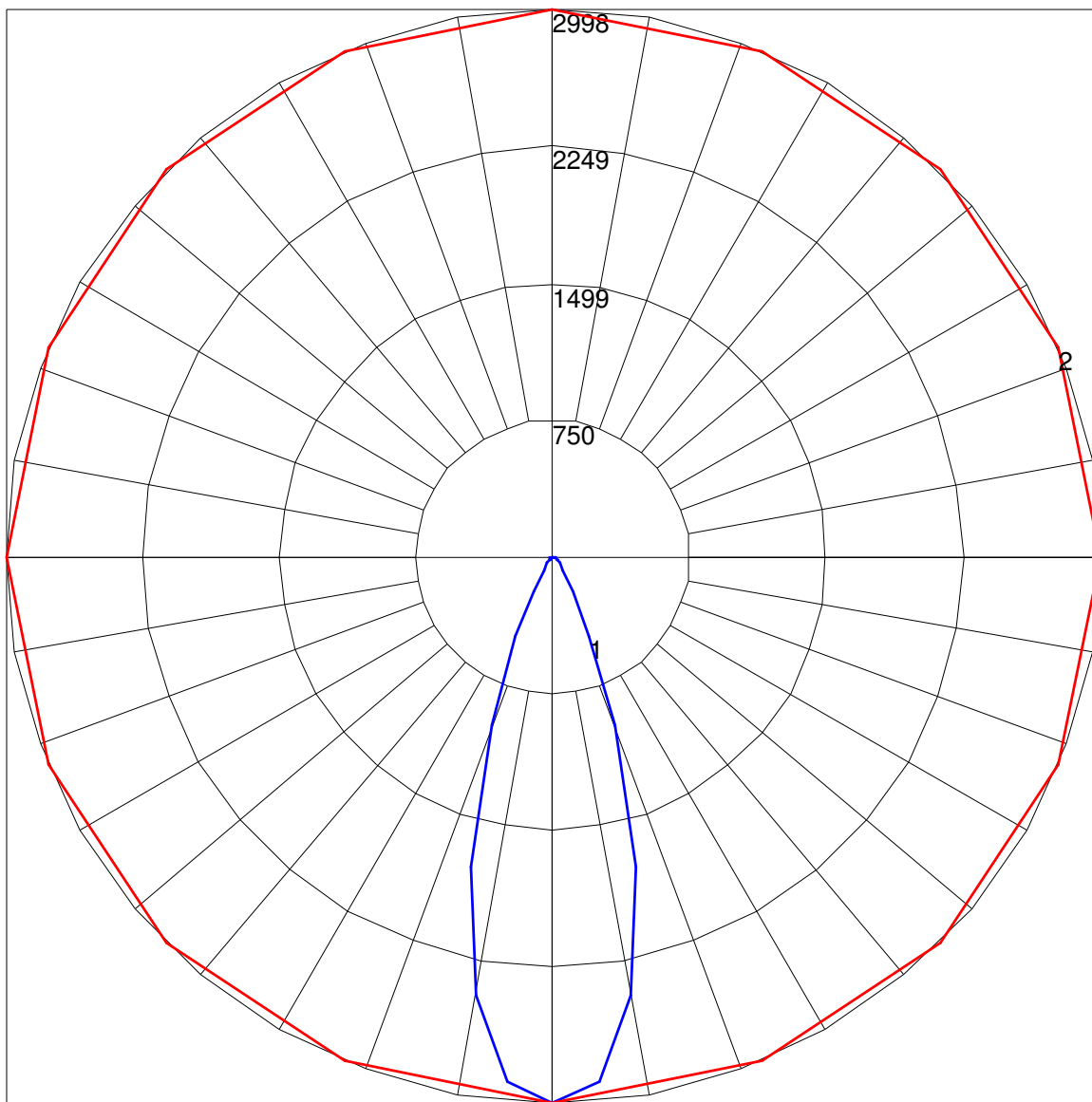
4H	2H	7.8	8.6	8.2	8.9	9.3	7.5	8.3	7.9	8.6	9.0
	3H	8.5	9.1	8.9	9.5	9.9	8.2	8.8	8.6	9.2	9.6
	4H	8.5	9.1	9.0	9.5	10.0	8.3	8.9	8.8	9.3	9.8
	6H	8.6	9.0	9.0	9.5	10.0	8.4	8.9	8.9	9.4	9.8
	8H	8.5	8.9	9.0	9.4	9.9	8.4	8.8	8.9	9.3	9.8
	12H	8.4	8.8	8.9	9.3	9.8	8.3	8.7	8.8	9.2	9.7

8H	4H	8.4	8.9	8.9	9.3	9.8	8.2	8.7	8.7	9.1	9.6
	6H	8.5	8.8	9.0	9.3	9.8	8.4	8.7	8.9	9.2	9.7
	8H	8.4	8.8	9.0	9.3	9.8	8.4	8.7	8.9	9.2	9.7
	12H	8.4	8.7	8.9	9.2	9.7	8.4	8.6	8.9	9.1	9.7

12H	4H	8.4	8.8	8.9	9.3	9.7	8.2	8.6	8.7	9.1	9.5
	6H	8.4	8.7	9.0	9.2	9.8	8.3	8.6	8.9	9.1	9.7
	8H	8.4	8.7	9.0	9.2	9.8	8.4	8.6	8.9	9.1	9.7

Maximum UGR = 10.0

POLAR GRAPH



Maximum Candela = 2998.019 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.)