



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 4DS-L30-840-DIM-UNV-RW-OF-WH_.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] 13-MAY-2020
 [MANUFAC] WILLIAMS INDOOR
 [OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO
 [LUMINAIRE] 4"SQ CAST HOUSING DOWNLIGHT
 [MORE] WITH 4"CAST WHITE REGRESS w/SOLITE LENS
 [LUMCAT] 4DS-L30-840-DIM-UNV-RW-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	2986
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	83
Total Luminaire Watts	36
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	55863	62301	55655
55	43011	41474	42243
65	27797	26060	27102
75	12482	13617	13050
85	6740	5055	6740

IES INDOOR REPORT
 PHOTOMETRIC FILENAME : 4DS-L30-840-DIM-UNV-RW-OF-WH_.IES

CANDELA TABULATION

	<u>0.0</u>	<u>22.5</u>	<u>45.0</u>	<u>67.5</u>	<u>90.0</u>
0	2278.870	2278.870	2278.870	2278.870	2278.870
5	2265.242	2265.242	2263.728	2266.756	2272.813
10	2222.844	2219.816	2230.415	2244.043	2253.128
15	2160.762	2159.248	2169.847	2188.018	2198.617
20	2078.995	2075.967	2089.595	2089.595	2077.481
25	1821.581	1876.093	1957.859	1892.749	1815.525
30	1194.703	1359.751	1709.531	1480.887	1194.703
35	679.875	763.156	1255.271	863.093	681.390
40	489.086	526.941	717.730	560.254	502.714
45	407.320	419.433	454.260	434.575	405.805
50	333.124	339.181	337.666	333.124	322.524
55	254.385	260.442	245.300	249.843	249.843
60	184.732	184.732	174.133	178.675	181.704
65	121.136	122.650	113.565	118.108	118.108
70	60.568	66.625	66.625	65.111	62.082
75	33.312	33.312	36.341	33.312	34.827
80	21.199	21.199	15.142	18.170	18.170
85	6.057	4.543	4.543	4.543	6.057
90	0.000	0.000	0.000	0.000	0.000

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 4DS-L30-840-DIM-UNV-RW-OF-WH_.IES

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	827.61	N.A.	27.70
0-30	1664.42	N.A.	55.70
0-40	2251.6	N.A.	75.40
0-60	2819.07	N.A.	94.40
0-80	2978.17	N.A.	99.70
0-90	2985.89	N.A.	100.00
10-90	2770.61	N.A.	92.80
20-40	1423.99	N.A.	47.70
20-50	1764.08	N.A.	59.10
40-70	686.52	N.A.	23.00
60-80	159.10	N.A.	5.30
70-80	40.05	N.A.	1.30
80-90	7.73	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	2985.89	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	215.29
10-20	612.32
20-30	836.81
30-40	587.18
40-50	340.09
50-60	227.38
60-70	119.05
70-80	40.05
80-90	7.73
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

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 4DS-L30-840-DIM-UNV-RW-OF-WH_.IES

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

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 4DS-L30-840-DIM-UNV-RW-OF-WH_.IES

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

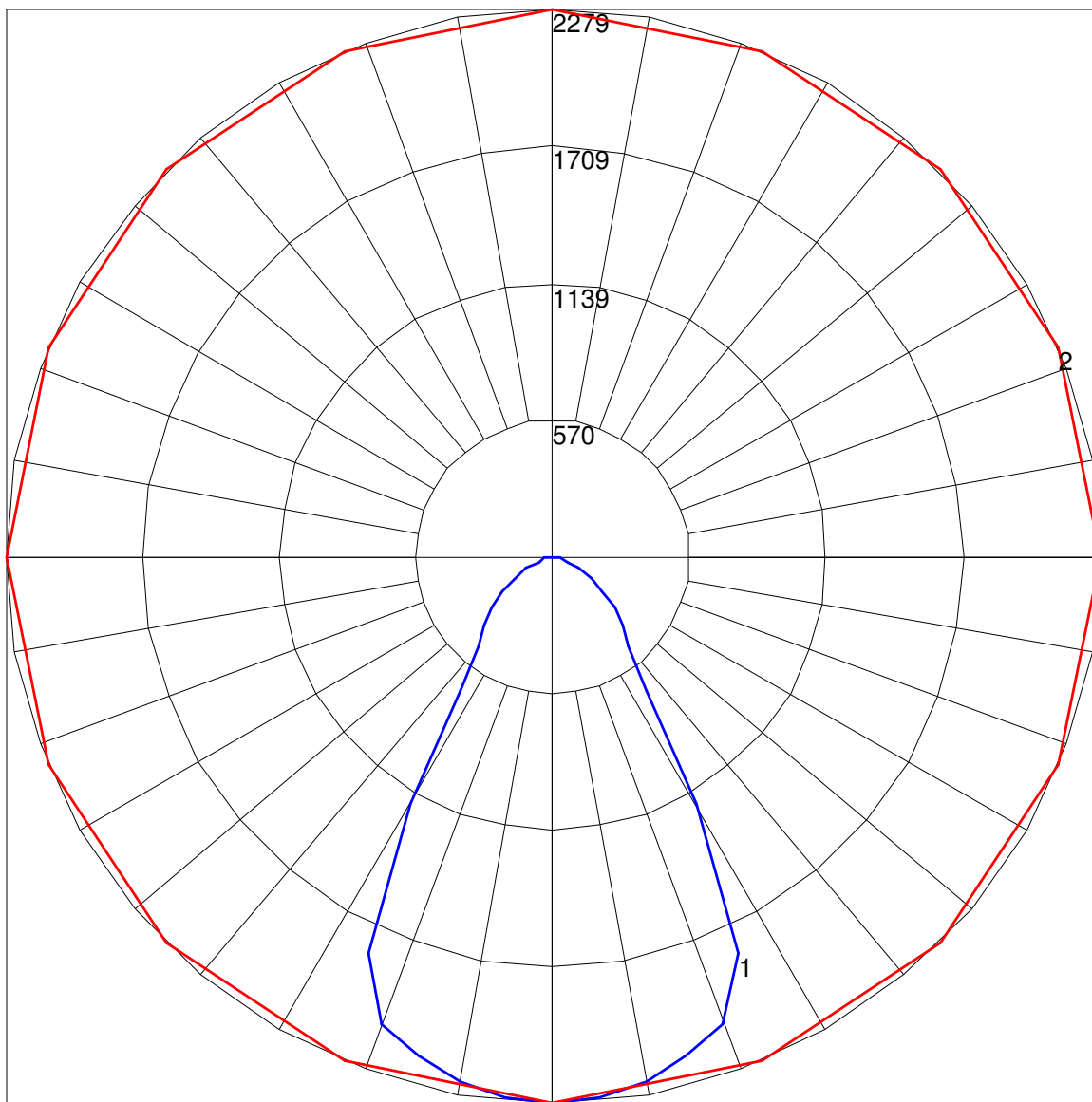
X=2H	Y=2H	22.7	23.9	23.0	24.2	24.5	22.4	23.7	22.8	24.0	24.3
	3H	23.3	24.4	23.7	24.7	25.1	23.1	24.2	23.5	24.5	24.9
	4H	23.4	24.4	23.8	24.8	25.2	23.2	24.2	23.6	24.6	25.0
	6H	23.5	24.4	23.9	24.8	25.2	23.3	24.2	23.7	24.6	25.0
	8H	23.5	24.4	23.9	24.7	25.2	23.3	24.1	23.7	24.5	24.9
	12H	23.4	24.3	23.9	24.7	25.1	23.2	24.1	23.7	24.5	24.9

UGR Viewed Endwise

4H	2H	22.9	23.9	23.3	24.2	24.6	22.7	23.7	23.1	24.0	24.4
	3H	23.6	24.5	24.0	24.9	25.3	23.5	24.3	23.9	24.7	25.1
	4H	23.8	24.5	24.2	24.9	25.4	23.6	24.3	24.0	24.8	25.2
	6H	23.9	24.5	24.4	25.0	25.4	23.7	24.3	24.2	24.8	25.3
	8H	23.9	24.5	24.4	24.9	25.4	23.7	24.3	24.2	24.7	25.2
	12H	23.9	24.4	24.4	24.9	25.4	23.7	24.2	24.2	24.7	25.2
8H	4H	23.7	24.3	24.2	24.8	25.3	23.6	24.2	24.1	24.6	25.1
	6H	23.9	24.4	24.4	24.9	25.4	23.7	24.2	24.2	24.7	25.2
	8H	23.9	24.4	24.5	24.9	25.4	23.7	24.2	24.3	24.7	25.2
	12H	24.0	24.3	24.5	24.8	25.4	23.8	24.1	24.3	24.6	25.2
12H	4H	23.7	24.2	24.2	24.7	25.2	23.6	24.1	24.0	24.6	25.0
	6H	23.9	24.3	24.4	24.8	25.3	23.7	24.1	24.2	24.6	25.1
	8H	23.9	24.3	24.5	24.8	25.4	23.7	24.1	24.3	24.6	25.2

Maximum UGR = 25.4

POLAR GRAPH



Maximum Candela = 2278.87 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.)