

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: FAIL-SAFE

Report Number: P489045

Luminaire Tested: **CLM-24-2-INS-A19156-LD4-1HI-50-120-EDD**

Issue Date: 3/11/2021

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.



Test Information

Test Method: LM-79-08
Report Number: P489045
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2101-115-8)
Test Lab: INNOVATION CENTER
Issue Date: 3/11/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: CLM-24-2-INS-A19156-LD4-1HI-50-120-EDD
Description: 2X2 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

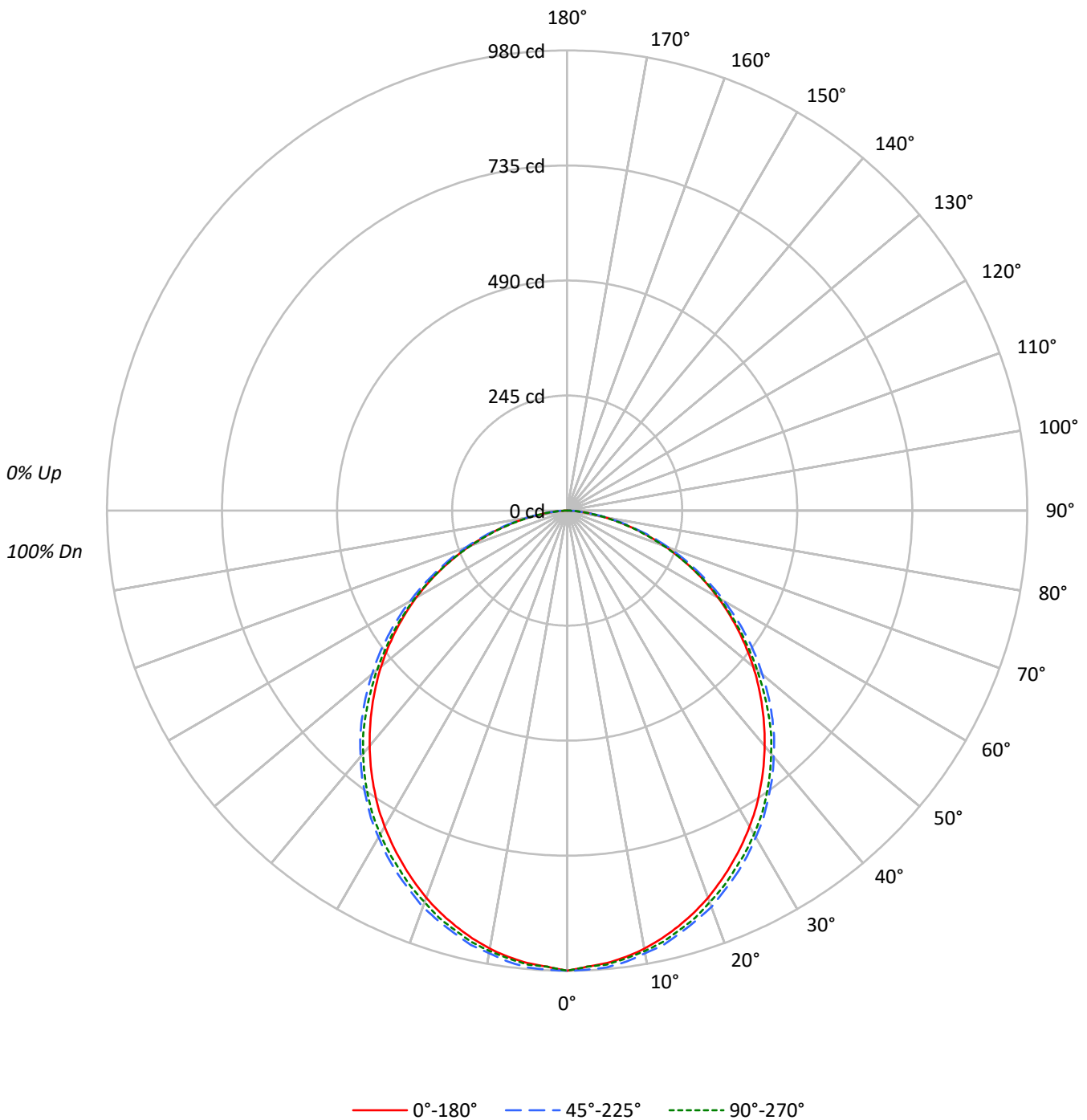
Lumens per Lamp: N/A
Luminaire Lumens: 2576.5 lumens
Efficiency: N/A
Efficacy: 119.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 21.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT

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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				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
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	105	100	97	106	102	98	95	98	95	92	94	92	89	91	88	87	85
2	99	91	85	79	97	90	83	78	86	81	76	83	78	75	80	76	73	71
3	91	80	72	66	88	79	71	65	76	70	64	73	68	63	71	66	62	60
4	83	71	63	56	81	70	62	56	68	61	55	65	59	54	63	58	54	51
5	77	64	55	48	75	63	54	48	61	53	48	59	52	47	57	51	47	45
6	71	58	49	42	69	57	48	42	55	47	42	53	47	41	52	46	41	39
7	66	52	44	38	64	51	43	37	50	43	37	49	42	37	47	41	37	35
8	61	48	39	34	60	47	39	33	46	38	33	45	38	33	43	37	33	31
9	57	44	36	30	56	43	35	30	42	35	30	41	35	30	40	34	30	28
10	54	41	33	27	52	40	32	27	39	32	27	38	32	27	37	31	27	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2637	2637	2637
5°	2613	2638	2621
10°	2589	2615	2603
15°	2553	2594	2576
20°	2513	2573	2542
25°	2464	2535	2506
30°	2414	2496	2473
35°	2360	2453	2431
40°	2298	2404	2374
45°	2234	2347	2302
50°	2167	2272	2212
55°	2088	2186	2119
60°	1999	2082	2018
65°	1884	1956	1885
70°	1734	1803	1714
75°	1526	1596	1503
80°	1241	1294	1226
85°	865	920	898



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	92.3	3.6
10°-20°	261.6	10.2
20°-30°	390.1	15.1
30°-40°	462.3	17.9
40°-50°	467.7	18.2
50°-60°	408.5	15.9
60°-70°	298.5	11.6
70°-80°	158.8	6.2
80°-90°	36.7	1.4
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	744.0	28.9
0°-40°	1206.2	46.8
0°-60°	2082.5	80.8
0°-90°	2576.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2576.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	980	980	980	980	980	
5°	967	969	976	979	970	92
15°	916	923	931	937	925	258
25°	830	840	854	857	844	382
35°	718	730	747	752	740	449
45°	587	597	617	617	605	453
55°	445	454	466	459	452	398
65°	296	302	307	301	296	293
75°	147	150	154	148	145	156
85°	28	28	30	30	29	35
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	980.0	980.0	980.0	980.0	980.0
2.5°	972.4	975.6	978.8	980.3	972.3
5°	967.3	969.1	976.4	978.6	970.3
7.5°	958.9	961.7	968.7	969.7	961.8
10°	947.5	952.4	957.1	962.2	952.5
12.5°	932.9	939.5	947.5	948.4	941.0
15°	916.4	922.6	931.2	936.9	924.7
17.5°	898.1	904.0	915.2	916.2	908.9
20°	877.5	884.9	898.4	900.7	887.5
22.5°	854.2	864.2	875.4	877.6	867.9
25°	829.8	840.1	853.9	857.1	844.1
27.5°	804.3	814.1	829.7	832.0	821.1
30°	777.0	786.1	803.3	807.1	795.9
32.5°	749.2	758.4	777.4	780.5	769.7
35°	718.3	729.6	746.8	752.0	739.9
37.5°	686.9	697.8	717.4	722.1	709.0
40°	654.3	665.1	684.4	688.3	675.8
42.5°	621.0	631.9	652.5	653.1	642.7
45°	587.0	597.4	616.6	617.1	605.0
47.5°	552.5	563.0	580.2	578.2	566.8
50°	517.6	527.6	542.6	538.7	528.4
52.5°	481.4	491.1	505.3	499.0	489.3
55°	445.1	454.1	465.9	459.2	451.6
57.5°	408.4	417.5	426.6	419.8	413.2
60°	371.5	379.4	386.9	379.9	374.9
62.5°	333.9	340.7	347.2	340.5	335.8
65°	295.9	301.9	307.2	301.1	296.1
67.5°	258.1	263.2	268.1	261.8	256.6
70°	220.4	224.7	229.2	222.7	217.9
72.5°	183.1	187.0	190.9	184.6	180.4
75°	146.8	150.2	153.5	147.9	144.6
77.5°	112.2	115.1	117.3	113.7	110.6
80°	80.1	82.2	83.5	82.1	79.1
82.5°	51.5	53.0	53.7	53.6	51.7
85°	28.0	28.5	29.8	30.1	29.1
87.5°	10.8	11.5	11.8	12.8	11.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)