

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: P488409

Luminaire Tested: **CLM-12-2-INS-A19156-LD4-1LO-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: P488409
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-12-2-INS-A19156-LD4-1LO-50-120-EDD
Description: 1X2 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

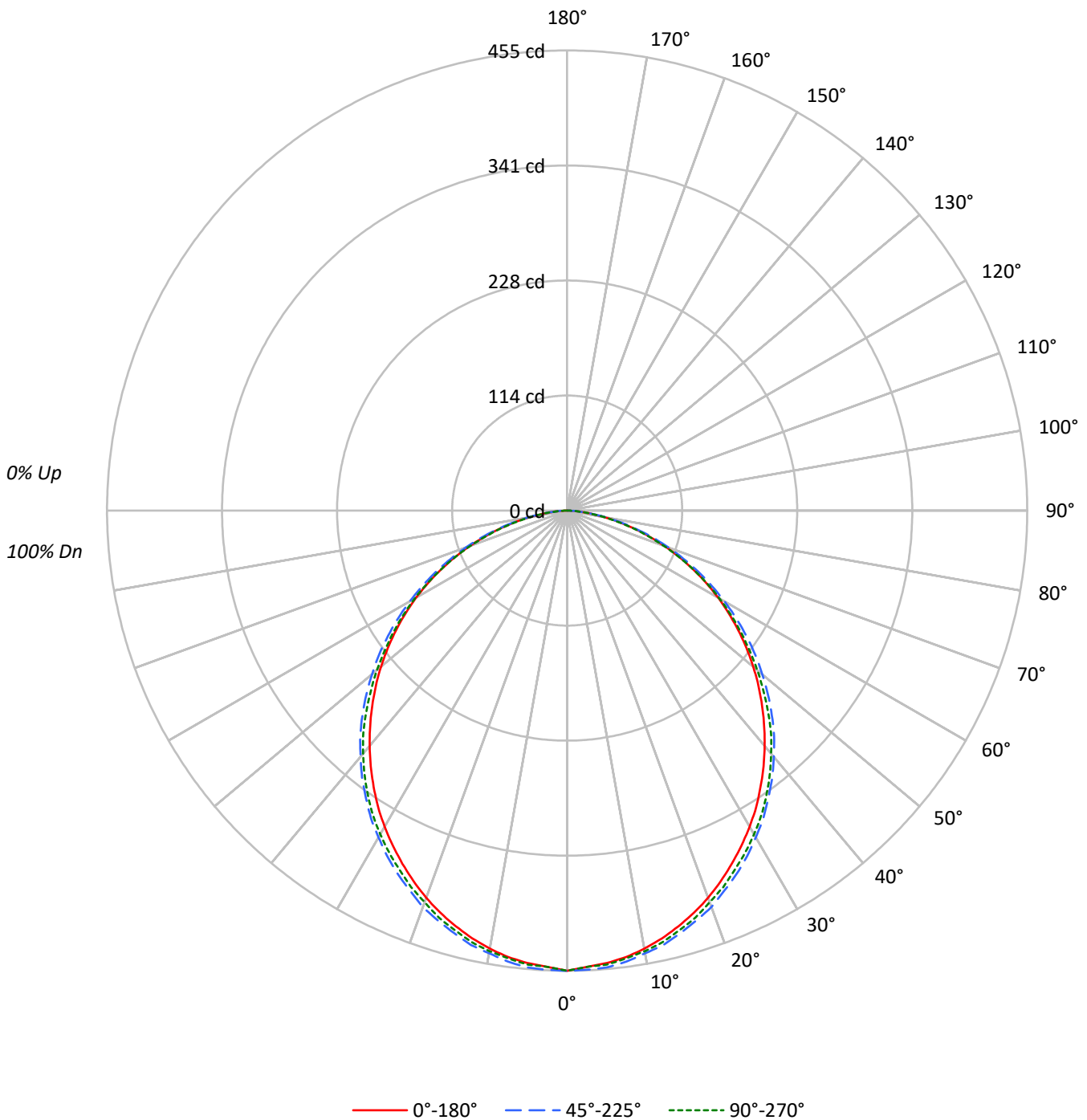
Lumens per Lamp: N/A
Luminaire Lumens: 1196.4 lumens
Efficiency: N/A
Efficacy: 102.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 11.7
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°	2449	2449	2449
5°	2426	2450	2434
10°	2404	2429	2417
15°	2371	2409	2393
20°	2334	2389	2360
25°	2288	2355	2328
30°	2242	2318	2297
35°	2191	2279	2258
40°	2134	2233	2205
45°	2075	2179	2138
50°	2012	2110	2055
55°	1939	2030	1968
60°	1857	1933	1874
65°	1750	1817	1751
70°	1610	1674	1592
75°	1418	1483	1395
80°	1153	1203	1137
85°	803	852	834



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	42.9	3.6
10°-20°	121.5	10.2
20°-30°	181.1	15.1
30°-40°	214.7	17.9
40°-50°	217.2	18.2
50°-60°	189.7	15.9
60°-70°	138.6	11.6
70°-80°	73.8	6.2
80°-90°	17.0	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°	345.5	28.9
0°-40°	560.1	46.8
0°-60°	967.0	80.8
0°-90°	1196.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1196.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	455	455	455	455	455	
5°	449	450	453	454	451	43
15°	426	428	432	435	429	120
25°	385	390	396	398	392	178
35°	334	339	347	349	344	209
45°	273	277	286	287	281	210
55°	207	211	216	213	210	185
65°	137	140	143	140	138	136
75°	68	70	71	69	67	72
85°	13	13	14	14	14	16
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	455.1	455.1	455.1	455.1	455.1
2.5°	451.5	453.0	454.5	455.2	451.5
5°	449.1	450.0	453.4	454.4	450.6
7.5°	445.3	446.5	449.8	450.3	446.6
10°	439.9	442.2	444.4	446.8	442.3
12.5°	433.2	436.2	439.9	440.4	437.0
15°	425.5	428.4	432.4	435.0	429.4
17.5°	417.0	419.7	425.0	425.4	422.0
20°	407.5	410.9	417.1	418.2	412.1
22.5°	396.7	401.3	406.5	407.5	403.0
25°	385.3	390.1	396.5	398.0	392.0
27.5°	373.5	378.0	385.3	386.3	381.2
30°	360.8	365.0	373.0	374.8	369.6
32.5°	347.9	352.1	361.0	362.4	357.4
35°	333.5	338.8	346.8	349.2	343.6
37.5°	318.9	324.0	333.1	335.3	329.2
40°	303.8	308.8	317.8	319.6	313.8
42.5°	288.4	293.4	303.0	303.3	298.4
45°	272.6	277.4	286.3	286.6	280.9
47.5°	256.6	261.4	269.4	268.5	263.2
50°	240.3	245.0	252.0	250.1	245.4
52.5°	223.6	228.1	234.6	231.7	227.2
55°	206.7	210.8	216.3	213.2	209.7
57.5°	189.7	193.9	198.1	194.9	191.9
60°	172.5	176.2	179.6	176.4	174.1
62.5°	155.0	158.2	161.2	158.1	155.9
65°	137.4	140.2	142.7	139.8	137.5
67.5°	119.9	122.2	124.5	121.6	119.1
70°	102.3	104.4	106.4	103.4	101.2
72.5°	85.0	86.8	88.7	85.7	83.8
75°	68.2	69.7	71.3	68.7	67.1
77.5°	52.1	53.4	54.5	52.8	51.3
80°	37.2	38.2	38.8	38.1	36.7
82.5°	23.9	24.6	24.9	24.9	24.0
85°	13.0	13.2	13.8	14.0	13.5
87.5°	5.0	5.4	5.5	5.9	5.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)