

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: P489057

Luminaire Tested: **CLM-24-2-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: P489057
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-LD4-1LO-50-120-EDD
Description: 2X2 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

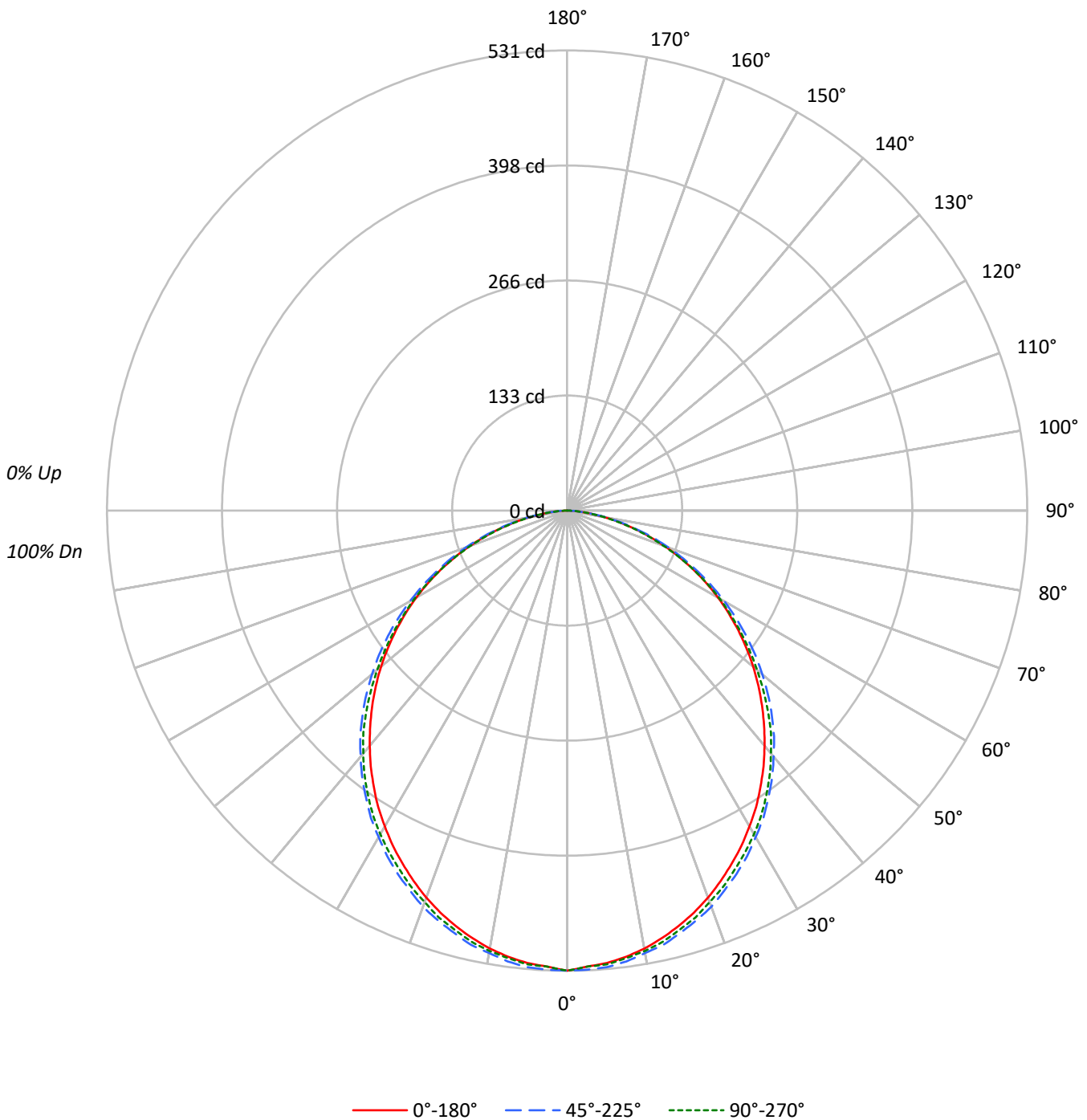
Lumens per Lamp: N/A
Luminaire Lumens: 1395.7 lumens
Efficiency: N/A
Efficacy: 119.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	1429	1429	1429
5°	1415	1429	1420
10°	1402	1417	1410
15°	1383	1405	1395
20°	1361	1393	1377
25°	1335	1374	1358
30°	1308	1352	1340
35°	1278	1329	1317
40°	1245	1302	1286
45°	1210	1271	1247
50°	1174	1230	1198
55°	1131	1184	1148
60°	1083	1128	1093
65°	1021	1060	1021
70°	939	977	928
75°	827	864	814
80°	673	700	665
85°	469	500	488



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	50.0	3.6
10°-20°	141.7	10.2
20°-30°	211.3	15.1
30°-40°	250.4	17.9
40°-50°	253.4	18.2
50°-60°	221.3	15.9
60°-70°	161.7	11.6
70°-80°	86.0	6.2
80°-90°	19.9	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°	403.0	28.9
0°-40°	653.4	46.8
0°-60°	1128.1	80.8
0°-90°	1395.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1395.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	531	531	531	531	531	
5°	524	525	529	530	526	50
15°	496	500	504	508	501	140
25°	450	455	463	464	457	207
35°	389	395	404	407	401	243
45°	318	324	334	334	328	245
55°	241	246	252	249	245	216
65°	160	164	166	163	160	159
75°	80	81	83	80	78	85
85°	15	15	16	16	16	19
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	530.9	530.9	530.9	530.9	530.9
2.5°	526.7	528.4	530.2	531.0	526.7
5°	524.0	525.0	528.9	530.1	525.6
7.5°	519.4	520.9	524.7	525.3	521.0
10°	513.2	515.9	518.4	521.2	515.9
12.5°	505.3	508.9	513.2	513.7	509.7
15°	496.4	499.7	504.4	507.5	500.9
17.5°	486.5	489.7	495.8	496.3	492.3
20°	475.3	479.3	486.6	487.9	480.8
22.5°	462.7	468.1	474.2	475.4	470.1
25°	449.5	455.0	462.6	464.3	457.3
27.5°	435.7	441.0	449.5	450.7	444.8
30°	420.9	425.8	435.1	437.2	431.1
32.5°	405.8	410.8	421.1	422.8	416.9
35°	389.1	395.2	404.5	407.4	400.8
37.5°	372.1	378.0	388.6	391.2	384.1
40°	354.4	360.3	370.7	372.9	366.0
42.5°	336.4	342.3	353.4	353.8	348.1
45°	318.0	323.6	334.0	334.3	327.7
47.5°	299.3	305.0	314.3	313.2	307.0
50°	280.4	285.8	293.9	291.8	286.2
52.5°	260.8	266.0	273.7	270.3	265.1
55°	241.1	246.0	252.4	248.7	244.6
57.5°	221.2	226.2	231.1	227.4	223.8
60°	201.2	205.5	209.6	205.8	203.1
62.5°	180.9	184.6	188.1	184.5	181.9
65°	160.3	163.6	166.4	163.1	160.4
67.5°	139.8	142.6	145.2	141.8	139.0
70°	119.4	121.7	124.2	120.6	118.0
72.5°	99.2	101.3	103.4	100.0	97.7
75°	79.5	81.4	83.1	80.1	78.3
77.5°	60.8	62.3	63.6	61.6	59.9
80°	43.4	44.5	45.2	44.5	42.9
82.5°	27.9	28.7	29.1	29.0	28.0
85°	15.2	15.4	16.2	16.3	15.8
87.5°	5.9	6.3	6.4	6.9	6.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)