

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: P489055

Luminaire Tested: **CLM-24-2-INS-A19156-LD4-1LO-40-120-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: P489055
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-40-120-EDD
Description: 2X2 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

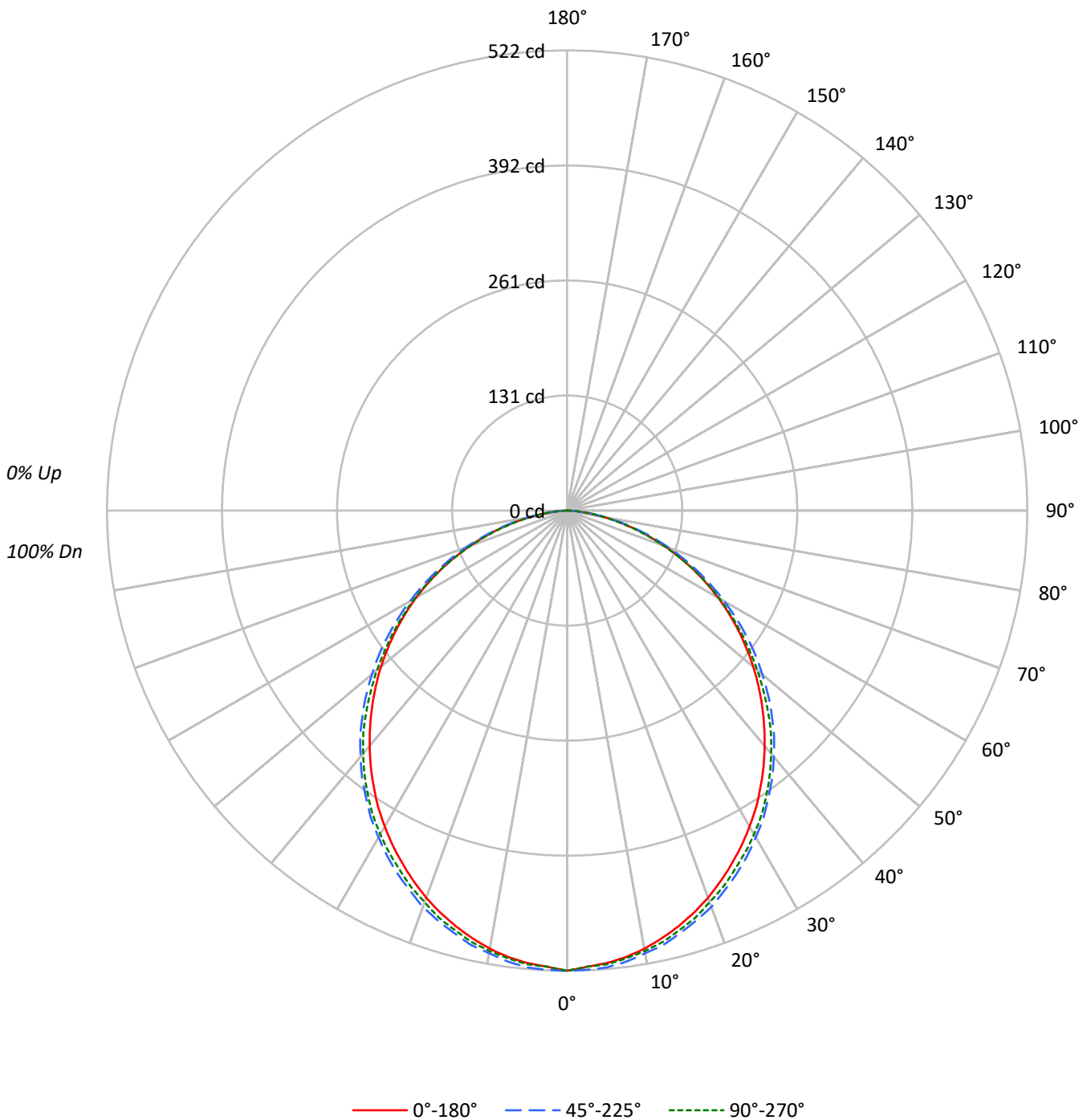
Lumens per Lamp: N/A
Luminaire Lumens: 1372.4 lumens
Efficiency: N/A
Efficacy: 117.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	1405	1405	1405
5°	1392	1405	1396
10°	1379	1393	1386
15°	1360	1382	1372
20°	1338	1370	1354
25°	1312	1350	1335
30°	1286	1330	1317
35°	1257	1307	1295
40°	1224	1281	1264
45°	1190	1250	1226
50°	1154	1210	1178
55°	1112	1164	1129
60°	1065	1109	1075
65°	1004	1042	1004
70°	924	961	913
75°	813	849	801
80°	660	690	654
85°	460	491	479



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	49.2	3.6
10°-20°	139.3	10.2
20°-30°	207.8	15.1
30°-40°	246.2	17.9
40°-50°	249.1	18.2
50°-60°	217.6	15.9
60°-70°	159.0	11.6
70°-80°	84.6	6.2
80°-90°	19.6	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°	396.3	28.9
0°-40°	642.5	46.8
0°-60°	1109.2	80.8
0°-90°	1372.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1372.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	522	522	522	522	522	
5°	515	516	520	521	517	49
15°	488	491	496	499	492	138
25°	442	447	455	456	450	204
35°	383	389	398	401	394	239
45°	313	318	328	329	322	241
55°	237	242	248	245	241	212
65°	158	161	164	160	158	156
75°	78	80	82	79	77	83
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°	522.0	522.0	522.0	522.0	522.0
2.5°	517.9	519.6	521.4	522.1	517.9
5°	515.2	516.2	520.1	521.3	516.8
7.5°	510.8	512.2	516.0	516.5	512.3
10°	504.7	507.3	509.8	512.5	507.3
12.5°	496.9	500.4	504.7	505.2	501.2
15°	488.1	491.4	496.0	499.0	492.5
17.5°	478.3	481.5	487.5	488.0	484.1
20°	467.4	471.3	478.5	479.8	472.7
22.5°	455.0	460.3	466.3	467.5	462.3
25°	442.0	447.4	454.8	456.5	449.6
27.5°	428.4	433.6	442.0	443.2	437.3
30°	413.8	418.7	427.9	429.9	424.0
32.5°	399.0	403.9	414.1	415.7	410.0
35°	382.6	388.6	397.8	400.6	394.1
37.5°	365.9	371.7	382.1	384.6	377.7
40°	348.5	354.3	364.6	366.6	359.9
42.5°	330.8	336.6	347.5	347.9	342.3
45°	312.7	318.2	328.4	328.7	322.2
47.5°	294.3	299.9	309.0	308.0	301.9
50°	275.7	281.0	289.0	286.9	281.5
52.5°	256.4	261.6	269.2	265.8	260.6
55°	237.1	241.9	248.2	244.6	240.6
57.5°	217.6	222.4	227.2	223.6	220.1
60°	197.9	202.1	206.1	202.4	199.7
62.5°	177.8	181.5	184.9	181.4	178.9
65°	157.6	160.8	163.7	160.4	157.7
67.5°	137.5	140.2	142.8	139.4	136.7
70°	117.4	119.7	122.1	118.6	116.1
72.5°	97.5	99.6	101.7	98.3	96.1
75°	78.2	80.0	81.7	78.8	77.0
77.5°	59.8	61.3	62.5	60.6	58.9
80°	42.6	43.8	44.5	43.7	42.2
82.5°	27.4	28.2	28.6	28.6	27.5
85°	14.9	15.2	15.9	16.0	15.5
87.5°	5.8	6.1	6.3	6.8	6.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)