

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: P489187

Luminaire Tested: **CLM-24-2-INS-A19156-LD4-5HI-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: P489187
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-LD4-5HI-40-120-EDD
Description: 2X2 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

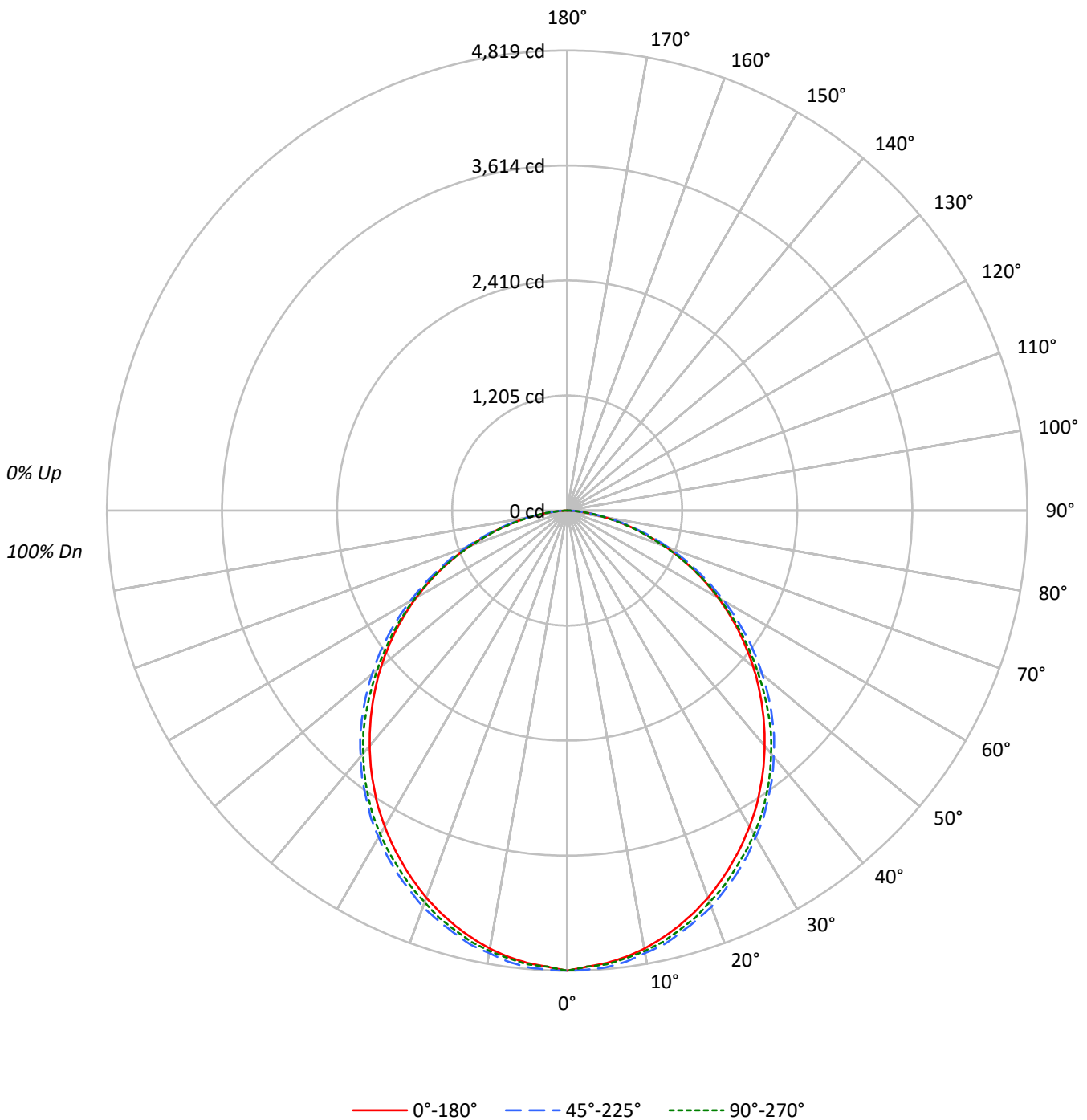
Lumens per Lamp: N/A
Luminaire Lumens: 12668.3 lumens
Efficiency: N/A
Efficacy: 117.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 108
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°	12967	12967	12967
5°	12847	12967	12887
10°	12729	12858	12796
15°	12553	12756	12666
20°	12355	12649	12496
25°	12114	12466	12323
30°	11870	12272	12160
35°	11602	12062	11950
40°	11301	11821	11671
45°	10984	11538	11320
50°	10654	11169	10877
55°	10267	10747	10418
60°	9830	10238	9922
65°	9264	9619	9270
70°	8524	8868	8430
75°	7506	7846	7391
80°	6100	6365	6030
85°	4248	4526	4418



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	453.8	3.6
10°-20°	1286.0	10.2
20°-30°	1918.0	15.1
30°-40°	2272.9	17.9
40°-50°	2299.8	18.2
50°-60°	2008.5	15.9
60°-70°	1467.8	11.6
70°-80°	781.0	6.2
80°-90°	180.5	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°	3657.9	28.9
0°-40°	5930.7	46.8
0°-60°	10239.1	80.8
0°-90°	12668.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	12668.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4819	4819	4819	4819	4819	
5°	4756	4765	4800	4812	4771	451
15°	4506	4536	4579	4606	4546	1270
25°	4080	4130	4199	4214	4150	1880
35°	3532	3587	3672	3698	3638	2209
45°	2886	2937	3032	3034	2975	2227
55°	2188	2233	2291	2258	2220	1956
65°	1455	1484	1511	1480	1456	1440
75°	722	738	755	727	711	768
85°	138	140	147	148	143	174
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4818.6	4818.6	4818.6	4818.6	4818.6
2.5°	4780.9	4796.5	4812.5	4819.6	4780.4
5°	4755.8	4764.9	4800.5	4811.5	4770.9
7.5°	4714.6	4728.2	4762.8	4767.9	4728.7
10°	4658.4	4682.5	4705.6	4730.7	4683.0
12.5°	4586.6	4619.3	4658.4	4662.9	4626.8
15°	4505.8	4535.9	4578.6	4606.2	4546.5
17.5°	4415.4	4444.6	4499.8	4504.8	4468.6
20°	4314.5	4350.7	4416.9	4428.5	4363.7
22.5°	4200.1	4248.8	4304.0	4315.0	4267.3
25°	4080.1	4130.3	4198.6	4214.1	4150.4
27.5°	3954.6	4002.8	4079.6	4090.6	4036.9
30°	3820.0	3865.2	3949.5	3968.1	3913.4
32.5°	3683.5	3728.6	3822.0	3837.6	3784.4
35°	3531.8	3587.1	3671.9	3697.5	3637.8
37.5°	3377.2	3430.9	3527.3	3550.4	3486.2
40°	3217.1	3270.3	3365.2	3384.2	3322.5
42.5°	3053.4	3106.6	3208.0	3211.0	3159.8
45°	2886.2	2937.4	3031.8	3034.3	2974.6
47.5°	2716.5	2768.2	2852.6	2843.0	2786.8
50°	2544.8	2594.0	2667.8	2648.8	2598.1
52.5°	2367.1	2414.8	2484.6	2453.5	2405.8
55°	2188.4	2232.6	2290.8	2257.7	2220.5
57.5°	2008.2	2052.8	2097.5	2063.9	2031.8
60°	1826.4	1865.6	1902.2	1868.1	1843.5
62.5°	1641.7	1675.3	1706.9	1674.3	1651.2
65°	1454.9	1484.5	1510.6	1480.5	1455.9
67.5°	1269.2	1294.3	1318.4	1287.2	1261.6
70°	1083.4	1105.0	1127.1	1094.9	1071.4
72.5°	900.2	919.2	938.8	907.7	887.1
75°	721.9	738.5	754.6	727.0	710.9
77.5°	551.7	565.8	576.8	559.3	543.7
80°	393.6	404.1	410.7	403.6	389.1
82.5°	253.0	260.6	264.1	263.6	254.0
85°	137.6	140.1	146.6	148.1	143.1
87.5°	53.2	56.7	58.2	62.8	57.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)