

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: P488428

Luminaire Tested: **CLM-12-2-INS-A19156-LD4-2HI-35-120-EDD-90**

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: P488428
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-LD4-2HI-35-120-EDD-90
Description: 1X2 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

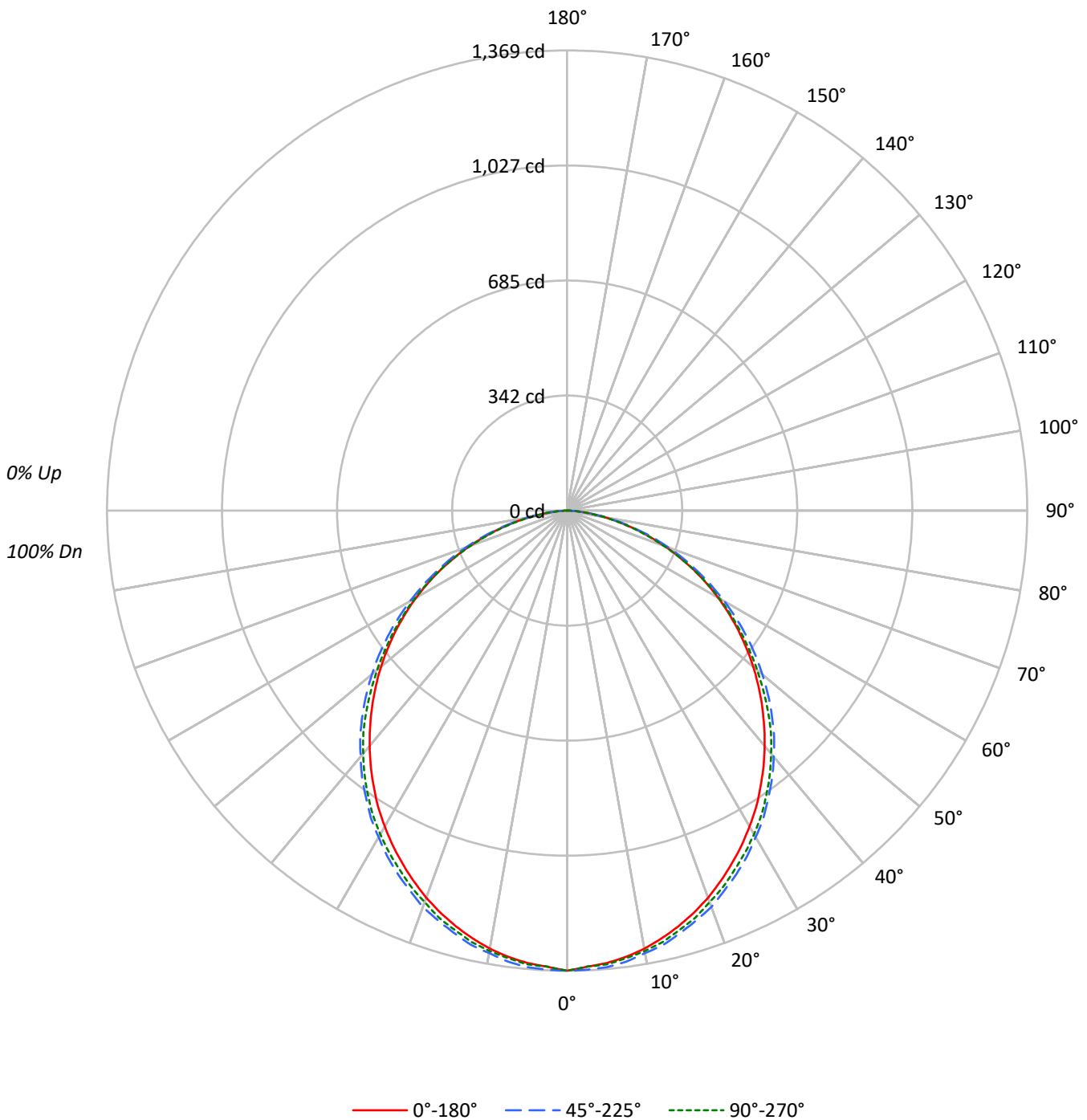
Lumens per Lamp: N/A
Luminaire Lumens: 3598.8 lumens
Efficiency: N/A
Efficacy: 83.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 43.2
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°	7367	7367	7367
5°	7299	7367	7322
10°	7232	7306	7270
15°	7132	7247	7197
20°	7020	7187	7100
25°	6883	7083	7001
30°	6744	6973	6909
35°	6592	6853	6790
40°	6421	6717	6632
45°	6240	6556	6431
50°	6053	6346	6180
55°	5834	6107	5919
60°	5584	5817	5637
65°	5263	5465	5267
70°	4843	5039	4788
75°	4265	4458	4198
80°	3465	3617	3425
85°	2414	2569	2507



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	128.9	3.6
10°-20°	365.3	10.2
20°-30°	544.9	15.1
30°-40°	645.7	17.9
40°-50°	653.3	18.2
50°-60°	570.6	15.9
60°-70°	417.0	11.6
70°-80°	221.9	6.2
80°-90°	51.3	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°	1039.1	28.9
0°-40°	1684.8	46.8
0°-60°	2908.7	80.8
0°-90°	3598.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3598.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1369	1369	1369	1369	1369	
5°	1351	1354	1364	1367	1355	128
15°	1280	1289	1301	1308	1292	361
25°	1159	1173	1193	1197	1179	534
35°	1003	1019	1043	1050	1033	627
45°	820	834	861	862	845	633
55°	622	634	651	641	631	556
65°	413	422	429	421	414	409
75°	205	210	214	206	202	218
85°	39	40	42	42	41	49
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1368.9	1368.9	1368.9	<i>1368.9</i>	1368.9
2.5°	<i>1358.2</i>	<i>1362.6</i>	<i>1367.1</i>	<i>1369.1</i>	<i>1358.0</i>
5°	1351.0	1353.6	1363.7	<i>1366.9</i>	1355.3
7.5°	1339.3	1343.2	1353.0	<i>1354.5</i>	1343.3
10°	1323.4	1330.2	1336.8	<i>1343.9</i>	1330.3
12.5°	1303.0	1312.2	1323.4	<i>1324.6</i>	1314.4
15°	1280.0	1288.6	1300.7	<i>1308.5</i>	1291.6
17.5°	1254.3	1262.6	1278.3	<i>1279.7</i>	1269.5
20°	1225.7	1235.9	1254.8	<i>1258.0</i>	1239.6
22.5°	1193.1	1207.0	1222.7	<i>1225.8</i>	1212.3
25°	1159.1	1173.3	1192.7	<i>1197.1</i>	1179.0
27.5°	1123.4	1137.1	1158.9	<i>1162.1</i>	1146.8
30°	1085.2	1098.0	1122.0	<i>1127.3</i>	1111.7
32.5°	1046.4	1059.2	1085.8	<i>1090.2</i>	1075.1
35°	1003.3	1019.0	1043.1	<i>1050.4</i>	1033.4
37.5°	959.4	974.7	1002.0	<i>1008.6</i>	990.3
40°	913.9	929.0	956.0	<i>961.4</i>	943.9
42.5°	867.4	882.5	911.3	<i>912.2</i>	897.6
45°	819.9	834.5	861.3	<i>862.0</i>	845.0
47.5°	771.7	786.4	810.4	<i>807.7</i>	791.7
50°	722.9	736.9	757.9	<i>752.5</i>	738.1
52.5°	672.4	686.0	705.8	<i>697.0</i>	683.4
55°	621.7	634.2	650.8	<i>641.4</i>	630.8
57.5°	570.5	583.2	595.9	<i>586.3</i>	577.2
60°	518.8	530.0	540.4	<i>530.7</i>	523.7
62.5°	466.4	475.9	484.9	<i>475.6</i>	469.1
65°	413.3	421.7	429.1	<i>420.6</i>	413.6
67.5°	360.5	367.7	374.5	<i>365.7</i>	358.4
70°	307.8	313.9	320.2	<i>311.1</i>	304.3
72.5°	255.7	261.1	266.7	<i>257.9</i>	252.0
75°	205.1	209.8	214.4	<i>206.5</i>	201.9
77.5°	156.7	160.7	163.9	<i>158.9</i>	154.5
80°	111.8	114.8	116.7	<i>114.7</i>	110.5
82.5°	71.9	74.0	75.0	<i>74.9</i>	72.2
85°	39.1	39.8	41.6	<i>42.1</i>	40.6
87.5°	15.1	16.1	16.5	<i>17.8</i>	16.4
90°	0.0	0.0	0.0	<i>0.0</i>	0.0

(END OF REPORT)