

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: P489127

Luminaire Tested: **CLM-24-2-INS-A19156-LD4-3LO-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: P489127
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-LD4-3LO-40-120-EDD
Description: 2X2 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

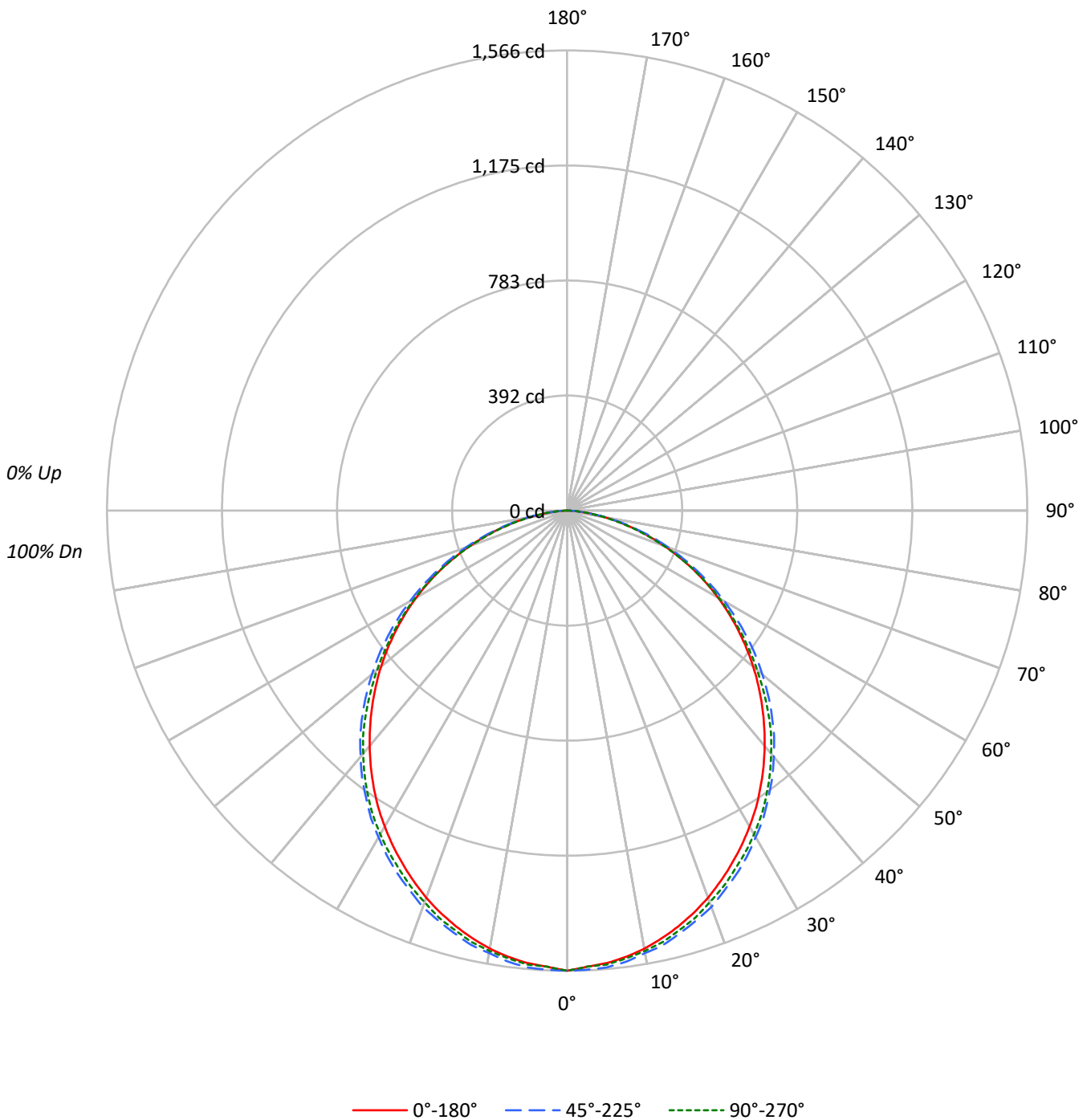
Lumens per Lamp: N/A
Luminaire Lumens: 4117.2 lumens
Efficiency: N/A
Efficacy: 117.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 35.1
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°	4214	4214	4214
5°	4175	4215	4188
10°	4137	4179	4159
15°	4080	4145	4116
20°	4015	4111	4061
25°	3937	4051	4005
30°	3858	3988	3952
35°	3771	3920	3884
40°	3673	3842	3793
45°	3570	3750	3679
50°	3463	3630	3535
55°	3337	3493	3386
60°	3195	3327	3224
65°	3011	3126	3013
70°	2770	2882	2740
75°	2439	2549	2402
80°	1982	2069	1960
85°	1380	1470	1436



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	147.5	3.6
10°-20°	418.0	10.2
20°-30°	623.4	15.1
30°-40°	738.7	17.9
40°-50°	747.4	18.2
50°-60°	652.8	15.9
60°-70°	477.0	11.6
70°-80°	253.8	6.2
80°-90°	58.7	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°	1188.8	28.9
0°-40°	1927.5	46.8
0°-60°	3327.7	80.8
0°-90°	4117.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4117.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1566	1566	1566	1566	1566	
5°	1546	1549	1560	1564	1550	147
15°	1464	1474	1488	1497	1478	413
25°	1326	1342	1364	1370	1349	611
35°	1148	1166	1193	1202	1182	718
45°	938	955	985	986	967	724
55°	711	726	744	734	722	636
65°	473	482	491	481	473	468
75°	235	240	245	236	231	249
85°	45	46	48	48	46	57
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1566.0	1566.0	1566.0	1566.0	1566.0
2.5°	1553.8	1558.9	1564.1	1566.4	1553.6
5°	1545.6	1548.6	1560.2	1563.8	1550.5
7.5°	1532.3	1536.7	1547.9	1549.6	1536.8
10°	1514.0	1521.8	1529.3	1537.5	1522.0
12.5°	1490.7	1501.3	1514.0	1515.5	1503.7
15°	1464.4	1474.2	1488.0	1497.0	1477.6
17.5°	1435.0	1444.5	1462.4	1464.1	1452.3
20°	1402.2	1414.0	1435.5	1439.3	1418.2
22.5°	1365.0	1380.8	1398.8	1402.4	1386.9
25°	1326.0	1342.3	1364.5	1369.6	1348.9
27.5°	1285.2	1300.9	1325.9	1329.5	1312.0
30°	1241.5	1256.2	1283.6	1289.6	1271.9
32.5°	1197.1	1211.8	1242.2	1247.2	1229.9
35°	1147.9	1165.8	1193.4	1201.7	1182.3
37.5°	1097.6	1115.1	1146.4	1153.9	1133.0
40°	1045.5	1062.8	1093.7	1099.9	1079.8
42.5°	992.4	1009.7	1042.6	1043.6	1026.9
45°	938.0	954.7	985.3	986.2	966.7
47.5°	882.9	899.7	927.1	924.0	905.7
50°	827.1	843.1	867.0	860.8	844.4
52.5°	769.3	784.8	807.5	797.4	781.9
55°	711.2	725.6	744.5	733.7	721.7
57.5°	652.7	667.2	681.7	670.8	660.3
60°	593.6	606.3	618.2	607.1	599.1
62.5°	533.5	544.5	554.8	544.1	536.6
65°	472.8	482.5	491.0	481.2	473.2
67.5°	412.5	420.6	428.5	418.3	410.0
70°	352.1	359.1	366.3	355.9	348.2
72.5°	292.6	298.8	305.1	295.0	288.3
75°	234.6	240.0	245.2	236.3	231.0
77.5°	179.3	183.9	187.5	181.8	176.7
80°	127.9	131.3	133.5	131.2	126.5
82.5°	82.2	84.7	85.8	85.7	82.6
85°	44.7	45.5	47.6	48.1	46.5
87.5°	17.3	18.4	18.9	20.4	18.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)