

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: P489079

Luminaire Tested: **CLM-24-2-INS-A19156-LD4-2HI-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: P489079  
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-LD4-2HI-40-120-EDD  
Description: 2X2 CLM LED LUMINAIRE WITH A19156 LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

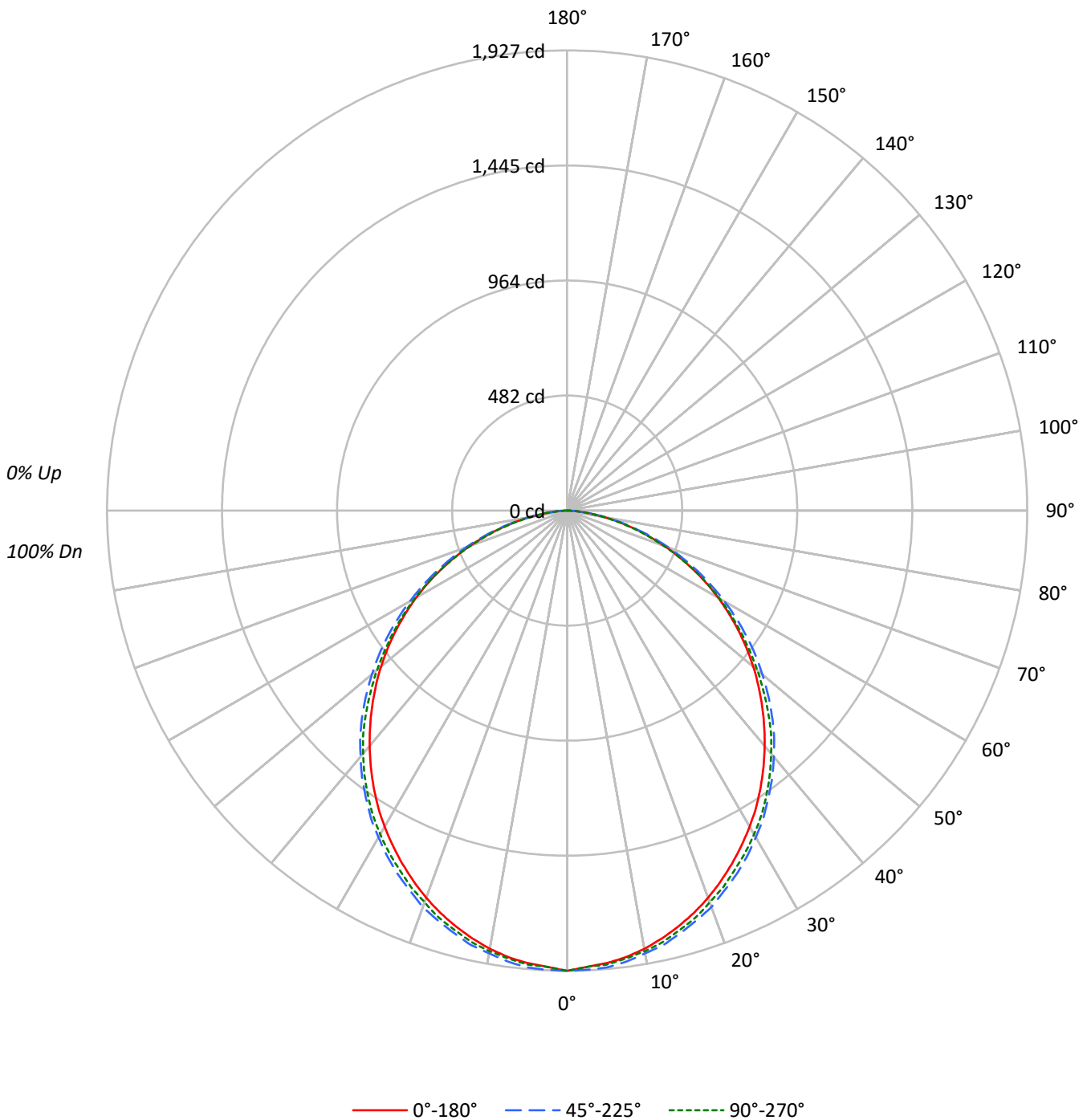
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5067.3 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): 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°	5187	5187	5187
5°	5139	5187	5155
10°	5092	5143	5119
15°	5021	5102	5066
20°	4942	5060	4999
25°	4846	4986	4929
30°	4748	4909	4864
35°	4641	4825	4780
40°	4520	4729	4669
45°	4394	4615	4528
50°	4261	4467	4351
55°	4107	4299	4167
60°	3932	4095	3969
65°	3706	3848	3708
70°	3410	3547	3371
75°	3003	3138	2957
80°	2439	2546	2411
85°	1698	1809	1766



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	181.5	3.6
10°-20°	514.4	10.2
20°-30°	767.2	15.1
30°-40°	909.2	17.9
40°-50°	919.9	18.2
50°-60°	803.4	15.9
60°-70°	587.1	11.6
70°-80°	312.4	6.2
80°-90°	72.2	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°	1463.1	28.9
0°-40°	2372.3	46.8
0°-60°	4095.6	80.8
0°-90°	5067.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5067.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1927	1927	1927	1927	1927	
5°	1902	1906	1920	1925	1908	180
15°	1802	1814	1831	1842	1819	508
25°	1632	1652	1679	1686	1660	752
35°	1413	1435	1469	1479	1455	883
45°	1154	1175	1213	1214	1190	891
55°	875	893	916	903	888	782
65°	582	594	604	592	582	576
75°	289	295	302	291	284	307
85°	55	56	59	59	57	70
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1927.4	1927.4	1927.4	1927.4	1927.4
2.5°	1912.4	1918.6	1925.0	1927.8	1912.2
5°	1902.3	1905.9	1920.2	1924.6	1908.3
7.5°	1885.9	1891.3	1905.1	1907.1	1891.5
10°	1863.4	1873.0	1882.2	1892.3	1873.2
12.5°	1834.6	1847.7	1863.4	1865.2	1850.7
15°	1802.3	1814.4	1831.4	1842.5	1818.6
17.5°	1766.2	1777.8	1799.9	1801.9	1787.5
20°	1725.8	1740.3	1766.8	1771.4	1745.5
22.5°	1680.0	1699.5	1721.6	1726.0	1706.9
25°	1632.0	1652.1	1679.4	1685.6	1660.1
27.5°	1581.8	1601.1	1631.8	1636.2	1614.8
30°	1528.0	1546.1	1579.8	1587.2	1565.4
32.5°	1473.4	1491.5	1528.8	1535.0	1513.7
35°	1412.7	1434.8	1468.8	1479.0	1455.1
37.5°	1350.9	1372.4	1410.9	1420.2	1394.5
40°	1286.8	1308.1	1346.1	1353.7	1329.0
42.5°	1221.4	1242.6	1283.2	1284.4	1263.9
45°	1154.5	1175.0	1212.7	1213.7	1189.8
47.5°	1086.6	1107.3	1141.0	1137.2	1114.7
50°	1017.9	1037.6	1067.1	1059.5	1039.2
52.5°	946.8	965.9	993.8	981.4	962.3
55°	875.4	893.0	916.3	903.1	888.2
57.5°	803.3	821.1	839.0	825.5	812.7
60°	730.6	746.2	760.9	747.2	737.4
62.5°	656.7	670.1	682.8	669.7	660.5
65°	582.0	593.8	604.3	592.2	582.4
67.5°	507.7	517.7	527.3	514.9	504.6
70°	433.4	442.0	450.8	438.0	428.5
72.5°	360.1	367.7	375.5	363.1	354.8
75°	288.8	295.4	301.8	290.8	284.4
77.5°	220.7	226.3	230.7	223.7	217.5
80°	157.4	161.7	164.3	161.5	155.6
82.5°	101.2	104.2	105.6	105.4	101.6
85°	55.0	56.0	58.6	59.2	57.2
87.5°	21.3	22.7	23.3	25.1	23.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)