

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: P489136

Luminaire Tested: **CLM-24-2-INS-A19156-LD4-3STD-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: P489136  
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-LD4-3STD-35-120-EDD-90  
Description: 2X2 CLM LED LUMINAIRE WITH A19156 LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

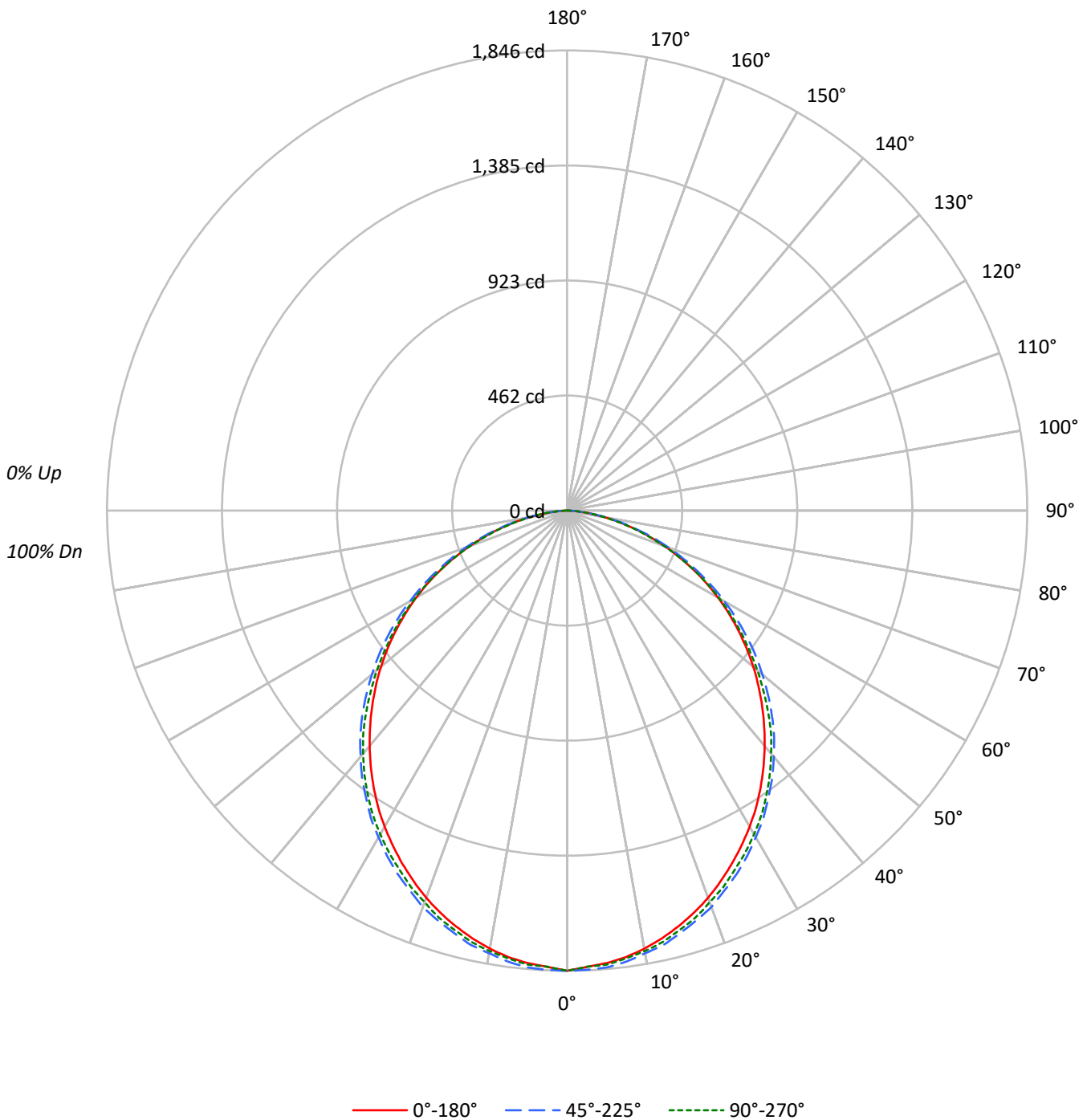
Lumens per Lamp: N/A  
Luminaire Lumens: 4854.0 lumens  
Efficiency: N/A  
Efficacy: 97.1 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 50  
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°	4968	4968	4968
5°	4922	4969	4938
10°	4877	4927	4903
15°	4810	4887	4853
20°	4734	4846	4788
25°	4642	4776	4722
30°	4548	4702	4659
35°	4446	4622	4579
40°	4330	4529	4472
45°	4209	4421	4337
50°	4082	4279	4168
55°	3934	4118	3992
60°	3766	3923	3802
65°	3550	3685	3552
70°	3266	3398	3230
75°	2876	3006	2832
80°	2337	2439	2311
85°	1627	1735	1692



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	173.9	3.6
10°-20°	492.7	10.2
20°-30°	734.9	15.1
30°-40°	870.9	17.9
40°-50°	881.2	18.2
50°-60°	769.6	15.9
60°-70°	562.4	11.6
70°-80°	299.2	6.2
80°-90°	69.2	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°	1401.5	28.9
0°-40°	2272.4	46.8
0°-60°	3923.2	80.8
0°-90°	4854.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4854.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1846	1846	1846	1846	1846	
5°	1822	1826	1839	1844	1828	173
15°	1726	1738	1754	1765	1742	487
25°	1563	1583	1609	1615	1590	720
35°	1353	1374	1407	1417	1394	846
45°	1106	1126	1162	1163	1140	853
55°	838	855	878	865	851	750
65°	558	569	579	567	558	552
75°	277	283	289	278	272	294
85°	53	54	56	57	55	67
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1846.3	1846.3	1846.3	1846.3	1846.3
2.5°	1831.9	1837.8	1844.0	1846.7	1831.7
5°	1822.2	1825.7	1839.4	1843.6	1828.0
7.5°	1806.5	1811.7	1824.9	1826.9	1811.9
10°	1784.9	1794.2	1803.0	1812.6	1794.4
12.5°	1757.4	1769.9	1784.9	1786.7	1772.8
15°	1726.4	1738.0	1754.3	1764.9	1742.0
17.5°	1691.8	1703.0	1724.1	1726.1	1712.2
20°	1653.2	1667.0	1692.4	1696.8	1672.0
22.5°	1609.3	1628.0	1649.1	1653.3	1635.1
25°	1563.3	1582.6	1608.7	1614.7	1590.3
27.5°	1515.2	1533.7	1563.1	1567.4	1546.8
30°	1463.7	1481.0	1513.3	1520.4	1499.5
32.5°	1411.4	1428.7	1464.5	1470.4	1450.0
35°	1353.3	1374.4	1406.9	1416.7	1393.9
37.5°	1294.0	1314.6	1351.5	1360.4	1335.8
40°	1232.7	1253.0	1289.4	1296.7	1273.1
42.5°	1169.9	1190.3	1229.2	1230.3	1210.7
45°	1105.9	1125.5	1161.7	1162.6	1139.7
47.5°	1040.9	1060.7	1093.0	1089.3	1067.8
50°	975.1	993.9	1022.2	1014.9	995.5
52.5°	907.0	925.3	952.0	940.1	921.8
55°	838.5	855.4	877.7	865.1	850.8
57.5°	769.4	786.6	803.7	790.8	778.5
60°	699.8	714.8	728.9	715.8	706.4
62.5°	629.0	641.9	654.0	641.5	632.7
65°	557.5	568.8	578.8	567.3	557.8
67.5°	486.3	495.9	505.1	493.2	483.4
70°	415.1	423.4	431.9	419.5	410.5
72.5°	344.9	352.2	359.7	347.8	339.9
75°	276.6	283.0	289.1	278.5	272.4
77.5°	211.4	216.8	221.0	214.3	208.3
80°	150.8	154.9	157.4	154.7	149.1
82.5°	97.0	99.8	101.2	101.0	97.3
85°	52.7	53.7	56.2	56.7	54.8
87.5°	20.4	21.7	22.3	24.0	22.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)