

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: P489139

Luminaire Tested: **CLM-24-2-INS-A19156-LD4-3STD-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: P489139  
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-40-120-EDD  
Description: 2X2 CLM LED LUMINAIRE WITH A19156 LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

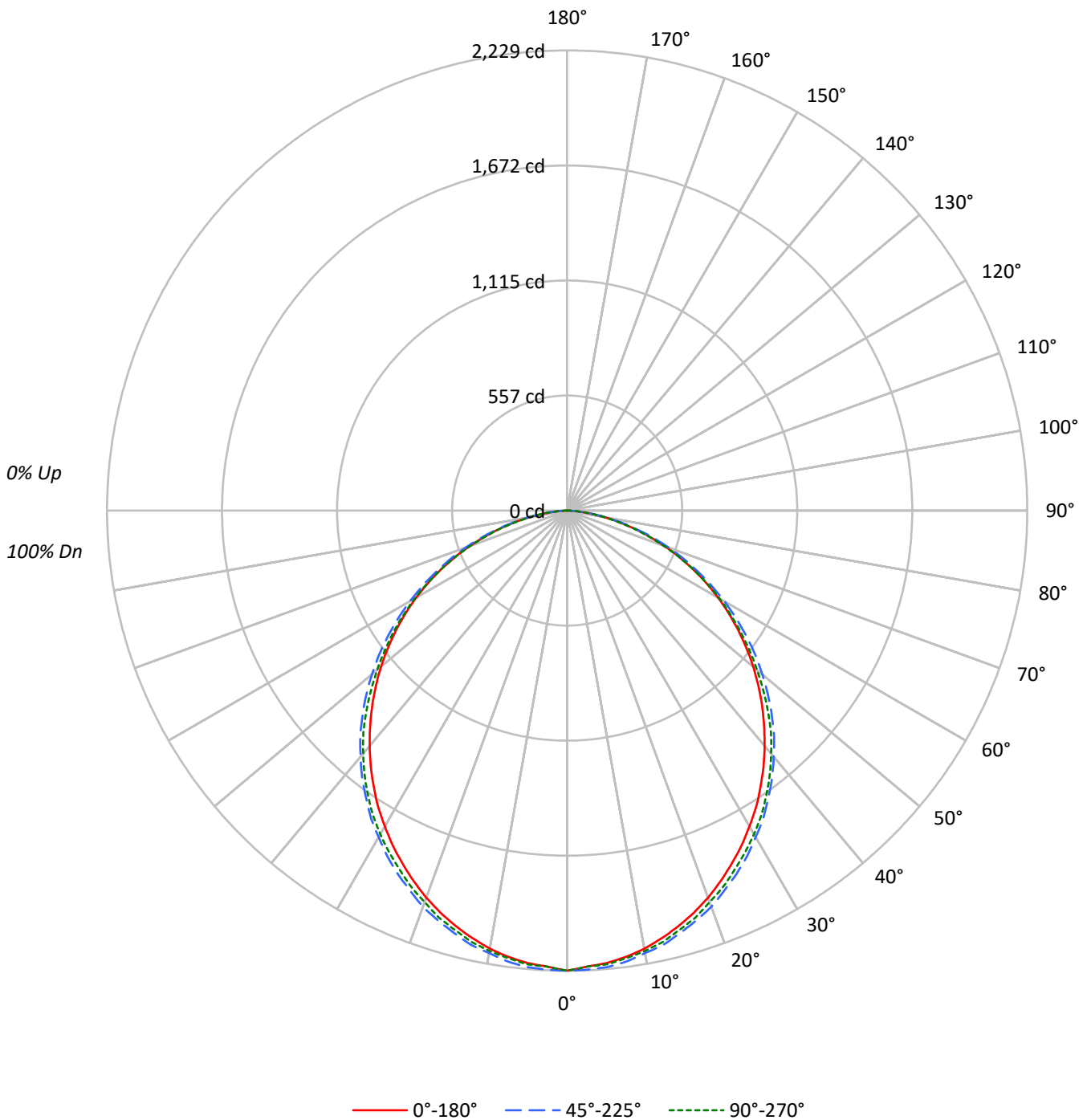
Lumens per Lamp: N/A  
Luminaire Lumens: 5859.1 lumens  
Efficiency: N/A  
Efficacy: 117.2 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

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°	5997	5997	5997
5°	5942	5997	5960
10°	5887	5947	5918
15°	5806	5899	5858
20°	5714	5850	5779
25°	5603	5766	5699
30°	5490	5676	5624
35°	5366	5579	5527
40°	5227	5467	5398
45°	5080	5336	5235
50°	4927	5166	5030
55°	4748	4971	4818
60°	4546	4735	4589
65°	4285	4449	4288
70°	3943	4102	3899
75°	3472	3629	3419
80°	2820	2943	2788
85°	1964	2093	2044



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	209.9	3.6
10°-20°	594.8	10.2
20°-30°	887.1	15.1
30°-40°	1051.2	17.9
40°-50°	1063.7	18.2
50°-60°	929.0	15.9
60°-70°	678.8	11.6
70°-80°	361.2	6.2
80°-90°	83.5	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°	1691.8	28.9
0°-40°	2743.0	46.8
0°-60°	4735.6	80.8
0°-90°	5859.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5859.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2229	2229	2229	2229	2229	
5°	2200	2204	2220	2225	2206	209
15°	2084	2098	2118	2130	2103	587
25°	1887	1910	1942	1949	1920	869
35°	1634	1659	1698	1710	1682	1022
45°	1335	1359	1402	1403	1376	1030
55°	1012	1033	1060	1044	1027	905
65°	673	687	699	685	673	666
75°	334	342	349	336	329	355
85°	64	65	68	68	66	81
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2228.6	2228.6	2228.6	2228.6	2228.6
2.5°	2211.2	2218.4	2225.8	2229.1	2210.9
5°	2199.6	2203.7	2220.2	2225.3	2206.5
7.5°	2180.5	2186.8	2202.8	2205.1	2187.0
10°	2154.5	2165.7	2176.3	2188.0	2165.9
12.5°	2121.3	2136.4	2154.5	2156.6	2139.9
15°	2083.9	2097.9	2117.6	2130.4	2102.7
17.5°	2042.1	2055.6	2081.2	2083.5	2066.8
20°	1995.5	2012.2	2042.8	2048.2	2018.2
22.5°	1942.5	1965.1	1990.6	1995.7	1973.6
25°	1887.0	1910.3	1941.8	1949.0	1919.5
27.5°	1829.0	1851.3	1886.8	1891.9	1867.1
30°	1766.8	1787.7	1826.7	1835.3	1809.9
32.5°	1703.6	1724.5	1767.7	1774.9	1750.3
35°	1633.5	1659.0	1698.3	1710.1	1682.5
37.5°	1562.0	1586.8	1631.4	1642.1	1612.4
40°	1487.9	1512.5	1556.4	1565.2	1536.7
42.5°	1412.2	1436.8	1483.7	1485.1	1461.4
45°	1334.9	1358.6	1402.2	1403.4	1375.7
47.5°	1256.4	1280.3	1319.3	1314.9	1288.9
50°	1177.0	1199.7	1233.9	1225.1	1201.6
52.5°	1094.8	1116.9	1149.1	1134.7	1112.7
55°	1012.1	1032.6	1059.5	1044.2	1027.0
57.5°	928.8	949.4	970.1	954.5	939.7
60°	844.7	862.8	879.8	864.0	852.6
62.5°	759.3	774.8	789.5	774.4	763.7
65°	672.9	686.6	698.7	684.7	673.4
67.5°	587.0	598.6	609.7	595.3	583.5
70°	501.1	511.1	521.3	506.4	495.5
72.5°	416.3	425.1	434.2	419.8	410.3
75°	333.9	341.6	349.0	336.2	328.8
77.5°	255.2	261.7	266.8	258.7	251.5
80°	182.0	186.9	189.9	186.7	179.9
82.5°	117.0	120.5	122.1	121.9	117.5
85°	63.6	64.8	67.8	68.5	66.2
87.5°	24.6	26.2	26.9	29.0	26.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)