

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: P489137

Luminaire Tested: **CLM-24-2-INS-A19156-LD4-3STD-35-120-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: P489137  
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  
Description: 2X2 CLM LED LUMINAIRE WITH A19156 LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

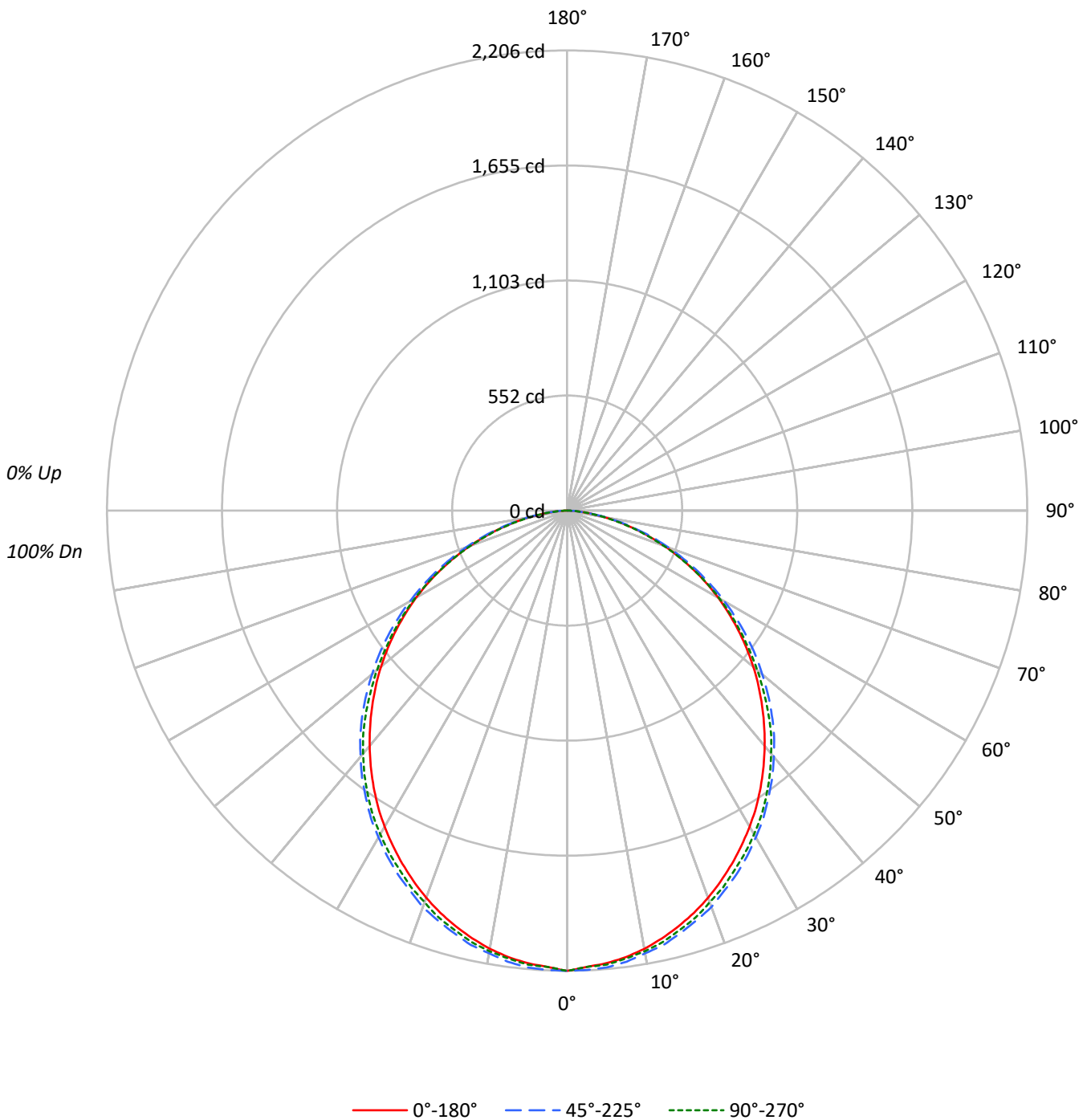
Lumens per Lamp: N/A  
Luminaire Lumens: 5801.1 lumens  
Efficiency: N/A  
Efficacy: 116.0 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

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°	5938	5938	5938
5°	5883	5938	5901
10°	5829	5888	5860
15°	5748	5841	5800
20°	5658	5792	5722
25°	5548	5709	5643
30°	5436	5620	5568
35°	5313	5524	5472
40°	5175	5413	5344
45°	5030	5283	5184
50°	4878	5115	4981
55°	4701	4921	4770
60°	4501	4688	4543
65°	4242	4405	4245
70°	3903	4061	3860
75°	3437	3592	3384
80°	2793	2915	2762
85°	1945	2072	2022



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	207.8	3.6
10°-20°	588.9	10.2
20°-30°	878.3	15.1
30°-40°	1040.8	17.9
40°-50°	1053.1	18.2
50°-60°	919.8	15.9
60°-70°	672.1	11.6
70°-80°	357.6	6.2
80°-90°	82.6	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°	1675.0	28.9
0°-40°	2715.8	46.8
0°-60°	4688.7	80.8
0°-90°	5801.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5801.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2206	2206	2206	2206	2206	
5°	2178	2182	2198	2203	2185	207
15°	2063	2077	2097	2109	2082	582
25°	1868	1891	1923	1930	1900	861
35°	1617	1643	1682	1693	1666	1011
45°	1322	1345	1388	1390	1362	1020
55°	1002	1022	1049	1034	1017	896
65°	666	680	692	678	667	659
75°	331	338	346	333	326	351
85°	63	64	67	68	66	80
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2206.5	2206.5	2206.5	2206.5	2206.5
2.5°	2189.3	2196.4	2203.8	2207.0	2189.1
5°	2177.8	2181.9	2198.3	2203.3	2184.7
7.5°	2158.9	2165.2	2181.0	2183.3	2165.4
10°	2133.2	2144.2	2154.8	2166.3	2144.5
12.5°	2100.3	2115.3	2133.2	2135.3	2118.7
15°	2063.3	2077.1	2096.6	2109.3	2081.9
17.5°	2021.9	2035.3	2060.5	2062.8	2046.3
20°	1975.7	1992.3	2022.6	2027.9	1998.2
22.5°	1923.3	1945.6	1970.9	1975.9	1954.1
25°	1868.4	1891.3	1922.6	1929.7	1900.5
27.5°	1810.9	1833.0	1868.1	1873.2	1848.6
30°	1749.3	1770.0	1808.6	1817.1	1792.0
32.5°	1686.7	1707.4	1750.2	1757.3	1732.9
35°	1617.3	1642.6	1681.5	1693.2	1665.8
37.5°	1546.5	1571.1	1615.2	1625.8	1596.4
40°	1473.2	1497.5	1541.0	1549.7	1521.4
42.5°	1398.2	1422.6	1469.0	1470.4	1447.0
45°	1321.7	1345.1	1388.3	1389.5	1362.1
47.5°	1244.0	1267.6	1306.3	1301.9	1276.1
50°	1165.3	1187.9	1221.7	1212.9	1189.7
52.5°	1084.0	1105.8	1137.8	1123.5	1101.7
55°	1002.1	1022.3	1049.0	1033.8	1016.8
57.5°	919.6	940.0	960.5	945.1	930.4
60°	836.4	854.3	871.1	855.4	844.2
62.5°	751.8	767.2	781.6	766.7	756.1
65°	666.2	679.8	691.8	678.0	666.7
67.5°	581.2	592.7	603.7	589.5	577.7
70°	496.1	506.0	516.1	501.4	490.6
72.5°	412.2	420.9	429.9	415.7	406.2
75°	330.6	338.2	345.5	332.9	325.5
77.5°	252.7	259.1	264.1	256.1	249.0
80°	180.2	185.1	188.1	184.8	178.2
82.5°	115.9	119.3	120.9	120.7	116.3
85°	63.0	64.1	67.1	67.8	65.5
87.5°	24.4	26.0	26.7	28.7	26.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)