

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: P489077

Luminaire Tested: **CLM-24-2-INS-A19156-LD4-2HI-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: P489077  
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-35-120-EDD  
Description: 2X2 CLM LED LUMINAIRE WITH A19156 LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

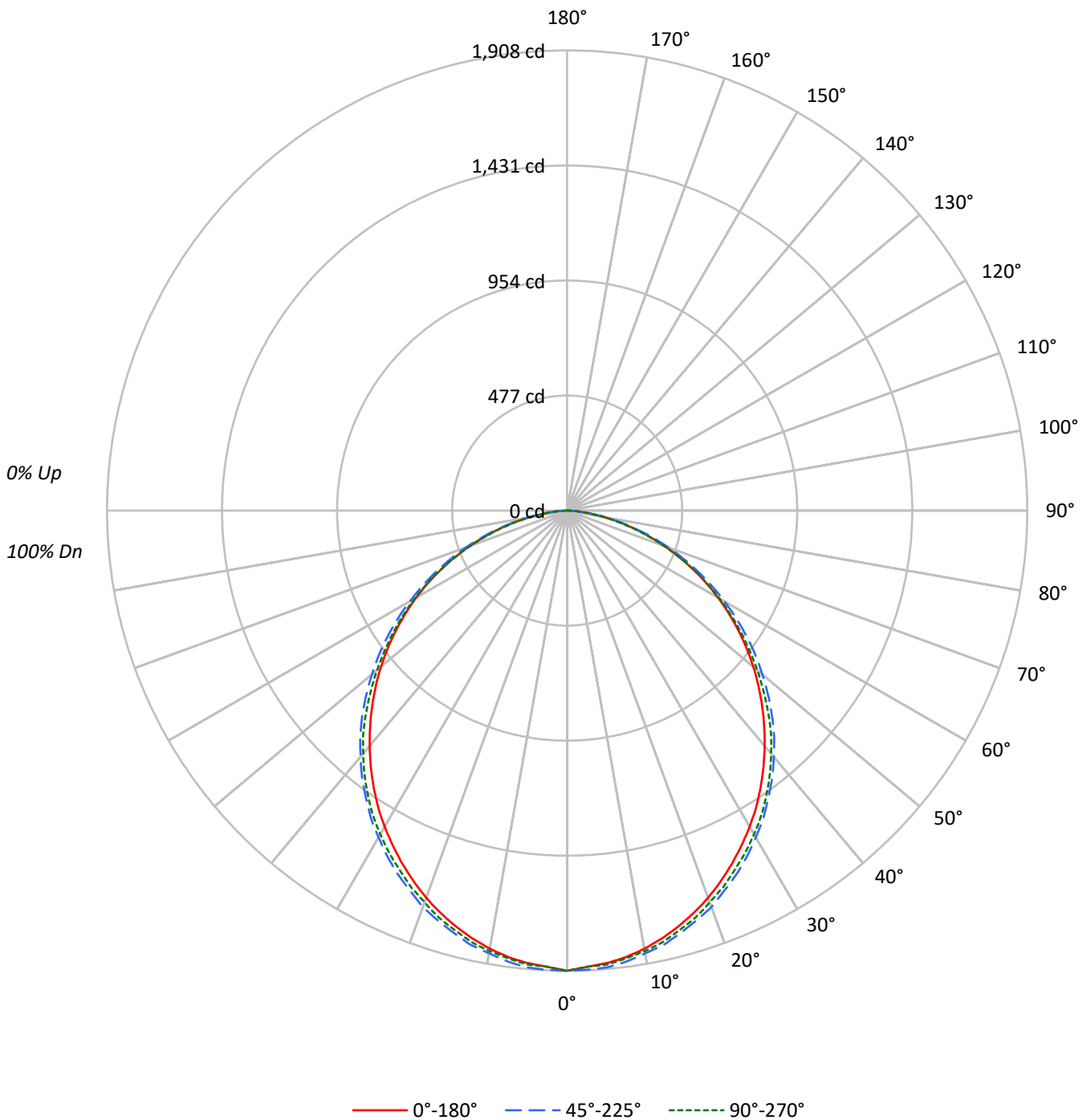
Lumens per Lamp: N/A  
Luminaire Lumens: 5017.1 lumens  
Efficiency: N/A  
Efficacy: 116.1 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 43.2  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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°	5135	5135	5135
5°	5088	5136	5104
10°	5041	5092	5068
15°	4971	5052	5016
20°	4893	5009	4949
25°	4798	4937	4880
30°	4701	4860	4816
35°	4595	4777	4733
40°	4476	4682	4622
45°	4350	4569	4483
50°	4219	4423	4307
55°	4066	4256	4126
60°	3893	4054	3929
65°	3669	3810	3671
70°	3376	3512	3338
75°	2973	3107	2927
80°	2416	2520	2388
85°	1683	1794	1751



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	179.7	3.6
10°-20°	509.3	10.2
20°-30°	759.6	15.1
30°-40°	900.1	17.9
40°-50°	910.8	18.2
50°-60°	795.5	15.9
60°-70°	581.3	11.6
70°-80°	309.3	6.2
80°-90°	71.5	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°	1448.6	28.9
0°-40°	2348.8	46.8
0°-60°	4055.0	80.8
0°-90°	5017.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5017.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1908	1908	1908	1908	1908	
5°	1884	1887	1901	1906	1889	179
15°	1784	1796	1813	1824	1801	503
25°	1616	1636	1663	1669	1644	744
35°	1399	1421	1454	1464	1441	875
45°	1143	1163	1201	1202	1178	882
55°	867	884	907	894	879	775
65°	576	588	598	586	577	570
75°	286	292	299	288	282	304
85°	54	56	58	59	57	69
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1908.3	1908.3	1908.3	1908.3	1908.3
2.5°	1893.4	1899.6	1905.9	1908.7	1893.2
5°	1883.5	1887.1	1901.2	1905.5	1889.4
7.5°	1867.2	1872.5	1886.3	1888.2	1872.7
10°	1844.9	1854.4	1863.6	1873.5	1854.6
12.5°	1816.5	1829.4	1844.9	1846.7	1832.4
15°	1784.5	1796.4	1813.3	1824.2	1800.6
17.5°	1748.7	1760.2	1782.1	1784.1	1769.7
20°	1708.7	1723.0	1749.3	1753.8	1728.2
22.5°	1663.4	1682.7	1704.5	1708.9	1690.0
25°	1615.9	1635.7	1662.8	1668.9	1643.7
27.5°	1566.1	1585.2	1615.7	1620.0	1598.8
30°	1512.9	1530.8	1564.2	1571.5	1549.8
32.5°	1458.8	1476.7	1513.7	1519.8	1498.7
35°	1398.7	1420.6	1454.2	1464.3	1440.7
37.5°	1337.5	1358.8	1396.9	1406.1	1380.6
40°	1274.1	1295.1	1332.7	1340.3	1315.8
42.5°	1209.3	1230.3	1270.5	1271.7	1251.4
45°	1143.0	1163.3	1200.7	1201.7	1178.0
47.5°	1075.8	1096.3	1129.7	1125.9	1103.7
50°	1007.8	1027.3	1056.6	1049.0	1028.9
52.5°	937.5	956.4	984.0	971.7	952.8
55°	866.7	884.2	907.2	894.1	879.4
57.5°	795.3	813.0	830.7	817.4	804.6
60°	723.3	738.8	753.3	739.8	730.1
62.5°	650.2	663.5	676.0	663.1	653.9
65°	576.2	587.9	598.3	586.3	576.6
67.5°	502.6	512.6	522.1	509.8	499.6
70°	429.1	437.6	446.4	433.6	424.3
72.5°	356.5	364.0	371.8	359.5	351.3
75°	285.9	292.5	298.8	287.9	281.5
77.5°	218.5	224.1	228.5	221.5	215.3
80°	155.9	160.1	162.6	159.9	154.1
82.5°	100.2	103.2	104.6	104.4	100.6
85°	54.5	55.5	58.1	58.7	56.7
87.5°	21.1	22.5	23.1	24.9	22.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)