

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: P489135

Luminaire Tested: **CLM-24-2-INS-A19156-LD4-3STD-30-120-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: P489135
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-30-120-EDD
Description: 2X2 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

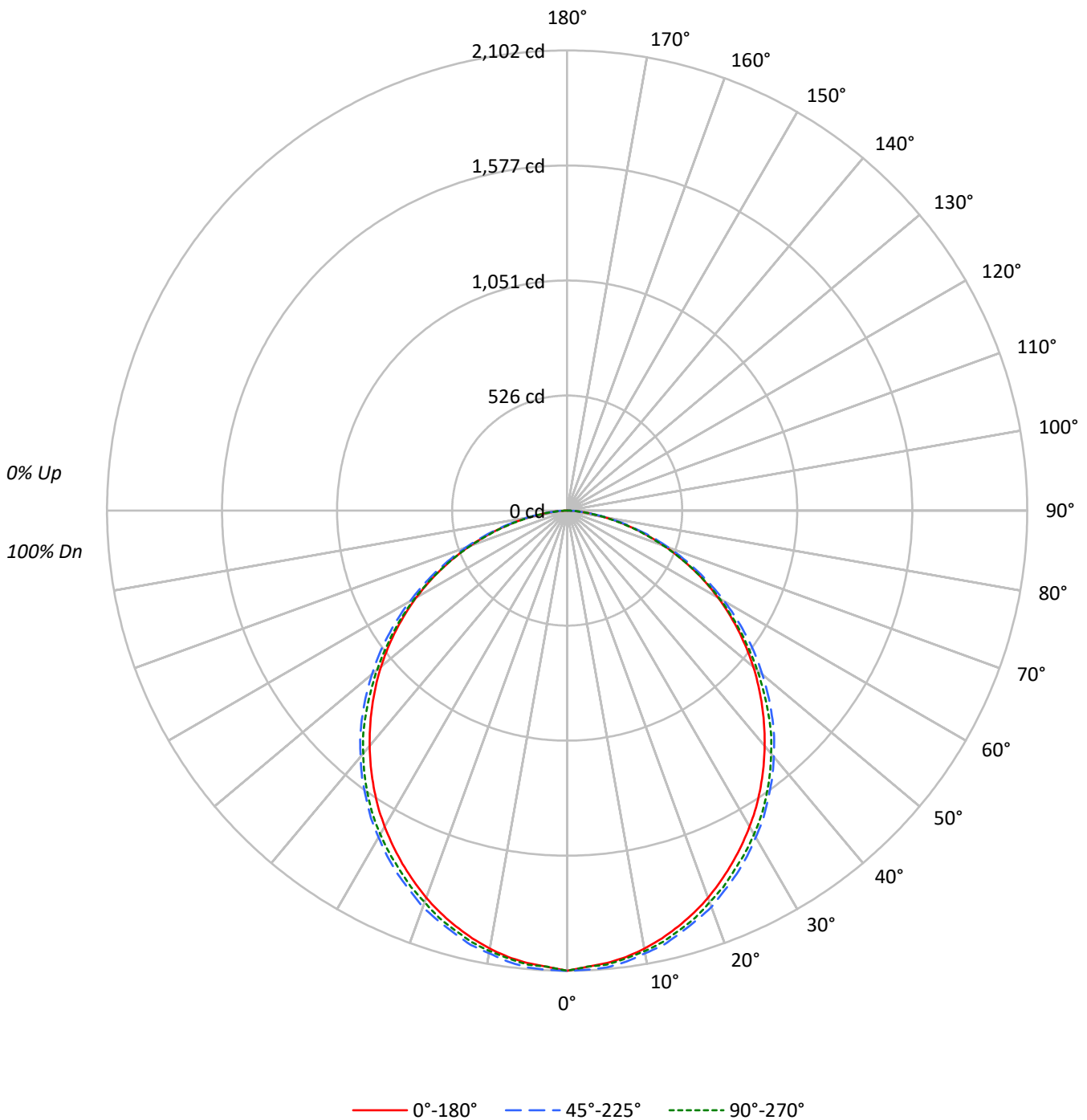
Lumens per Lamp: N/A
Luminaire Lumens: 5527.0 lumens
Efficiency: N/A
Efficacy: 110.5 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	5657	5657	5657
5°	5605	5658	5623
10°	5554	5610	5583
15°	5477	5565	5526
20°	5391	5518	5452
25°	5285	5439	5376
30°	5179	5354	5305
35°	5062	5263	5214
40°	4931	5158	5092
45°	4792	5034	4939
50°	4648	4873	4745
55°	4480	4689	4545
60°	4288	4466	4329
65°	4042	4197	4045
70°	3719	3869	3677
75°	3275	3423	3225
80°	2661	2777	2631
85°	1853	1976	1927



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	198.0	3.6
10°-20°	561.1	10.2
20°-30°	836.8	15.1
30°-40°	991.6	17.9
40°-50°	1003.4	18.2
50°-60°	876.3	15.9
60°-70°	640.4	11.6
70°-80°	340.7	6.2
80°-90°	78.8	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°	1595.9	28.9
0°-40°	2587.5	46.8
0°-60°	4467.1	80.8
0°-90°	5527.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5527.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2102	2102	2102	2102	2102	
5°	2075	2079	2094	2099	2082	197
15°	1966	1979	1998	2010	1984	554
25°	1780	1802	1832	1839	1811	820
35°	1541	1565	1602	1613	1587	964
45°	1259	1282	1323	1324	1298	971
55°	955	974	999	985	969	853
65°	635	648	659	646	635	628
75°	315	322	329	317	310	335
85°	60	61	64	65	62	76
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2102.3	2102.3	2102.3	2102.3	2102.3
2.5°	2085.8	2092.6	2099.6	2102.7	2085.6
5°	2074.9	2078.8	2094.4	2099.2	2081.5
7.5°	2056.9	2062.8	2078.0	2080.2	2063.1
10°	2032.4	2042.9	2053.0	2063.9	2043.1
12.5°	2001.1	2015.3	2032.4	2034.4	2018.6
15°	1965.8	1979.0	1997.6	2009.6	1983.6
17.5°	1926.4	1939.1	1963.2	1965.4	1949.6
20°	1882.4	1898.1	1927.0	1932.1	1903.8
22.5°	1832.4	1853.7	1877.8	1882.6	1861.8
25°	1780.1	1802.0	1831.8	1838.6	1810.7
27.5°	1725.3	1746.3	1779.9	1784.7	1761.2
30°	1666.6	1686.3	1723.1	1731.2	1707.4
32.5°	1607.0	1626.8	1667.5	1674.3	1651.1
35°	1540.9	1565.0	1602.0	1613.2	1587.1
37.5°	1473.4	1496.9	1538.9	1549.0	1521.0
40°	1403.6	1426.8	1468.2	1476.5	1449.6
42.5°	1332.2	1355.4	1399.6	1400.9	1378.6
45°	1259.2	1281.6	1322.7	1323.8	1297.8
47.5°	1185.2	1207.7	1244.5	1240.4	1215.8
50°	1110.3	1131.7	1163.9	1155.6	1133.5
52.5°	1032.7	1053.5	1084.0	1070.4	1049.6
55°	954.8	974.0	999.4	985.0	968.8
57.5°	876.1	895.6	915.1	900.4	886.4
60°	796.8	813.9	829.9	815.0	804.3
62.5°	716.2	730.9	744.7	730.5	720.4
65°	634.8	647.7	659.1	645.9	635.2
67.5°	553.7	564.7	575.2	561.6	550.4
70°	472.7	482.1	491.7	477.7	467.4
72.5°	392.7	401.0	409.6	396.0	387.0
75°	315.0	322.2	329.2	317.2	310.2
77.5°	240.7	246.8	251.7	244.0	237.2
80°	171.7	176.3	179.2	176.1	169.8
82.5°	110.4	113.7	115.2	115.0	110.8
85°	60.0	61.1	64.0	64.6	62.4
87.5°	23.2	24.8	25.4	27.4	25.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)