

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: P489192

Luminaire Tested: **CLM-24-2-INS-A19156-LD4-5LO-27-120-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: P489192
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-LD4-5LO-27-120-EDD-90
Description: 2X2 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

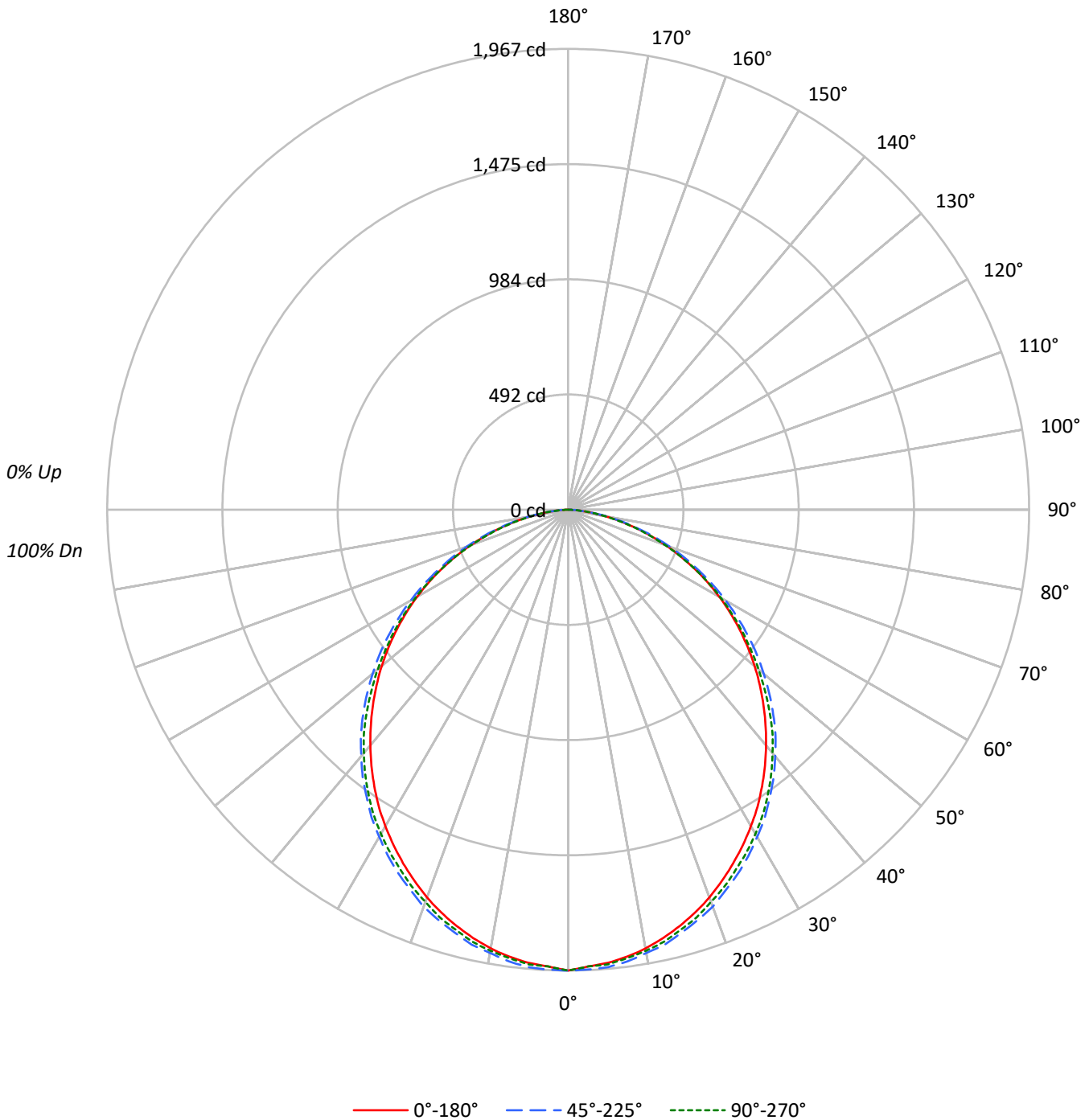
Lumens per Lamp: N/A
Luminaire Lumens: 5171.8 lumens
Efficiency: N/A
Efficacy: 88.4 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 58.5
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°	5294	5294	5294
5°	5244	5294	5261
10°	5197	5249	5224
15°	5125	5207	5171
20°	5044	5164	5102
25°	4946	5089	5031
30°	4846	5010	4964
35°	4737	4924	4879
40°	4614	4826	4765
45°	4484	4710	4622
50°	4349	4559	4440
55°	4191	4388	4253
60°	4013	4180	4050
65°	3782	3927	3785
70°	3480	3620	3441
75°	3064	3202	3017
80°	2490	2599	2461
85°	1735	1846	1803



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	185.3	3.6
10°-20°	525.0	10.2
20°-30°	783.0	15.1
30°-40°	927.9	17.9
40°-50°	938.9	18.2
50°-60°	820.0	15.9
60°-70°	599.2	11.6
70°-80°	318.8	6.2
80°-90°	73.7	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°	1493.3	28.9
0°-40°	2421.2	46.8
0°-60°	4180.1	80.8
0°-90°	5171.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5171.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1967	1967	1967	1967	1967	
5°	1942	1945	1960	1964	1948	184
15°	1840	1852	1869	1880	1856	519
25°	1666	1686	1714	1720	1694	767
35°	1442	1464	1499	1510	1485	902
45°	1178	1199	1238	1239	1214	909
55°	893	911	935	922	906	799
65°	594	606	617	604	594	588
75°	295	302	308	297	290	313
85°	56	57	60	60	58	71
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1967.2	1967.2	1967.2	1967.2	1967.2
2.5°	1951.8	1958.2	1964.7	1967.6	1951.6
5°	1941.5	1945.2	1959.8	1964.3	1947.7
7.5°	1924.7	1930.3	1944.4	1946.5	1930.5
10°	1901.8	1911.6	1921.1	1931.3	1911.8
12.5°	1872.5	1885.8	1901.8	1903.6	1888.9
15°	1839.5	1851.8	1869.2	1880.5	1856.1
17.5°	1802.6	1814.5	1837.0	1839.1	1824.3
20°	1761.4	1776.1	1803.2	1807.9	1781.5
22.5°	1714.7	1734.5	1757.1	1761.6	1742.1
25°	1665.7	1686.2	1714.0	1720.4	1694.4
27.5°	1614.4	1634.1	1665.5	1670.0	1648.1
30°	1559.5	1578.0	1612.4	1620.0	1597.6
32.5°	1503.8	1522.2	1560.3	1566.7	1545.0
35°	1441.9	1464.4	1499.0	1509.5	1485.1
37.5°	1378.7	1400.7	1440.0	1449.4	1423.2
40°	1313.4	1335.1	1373.8	1381.6	1356.4
42.5°	1246.5	1268.3	1309.7	1310.9	1290.0
45°	1178.3	1199.2	1237.7	1238.8	1214.4
47.5°	1109.0	1130.1	1164.6	1160.7	1137.7
50°	1038.9	1059.0	1089.1	1081.3	1060.6
52.5°	966.4	985.8	1014.3	1001.6	982.1
55°	893.4	911.4	935.2	921.7	906.5
57.5°	819.8	838.1	856.3	842.6	829.5
60°	745.6	761.6	776.6	762.6	752.6
62.5°	670.2	683.9	696.9	683.5	674.1
65°	594.0	606.1	616.7	604.4	594.4
67.5°	518.1	528.4	538.2	525.5	515.1
70°	442.3	451.1	460.1	447.0	437.4
72.5°	367.5	375.3	383.3	370.6	362.2
75°	294.7	301.5	308.0	296.8	290.2
77.5°	225.2	231.0	235.5	228.3	222.0
80°	160.7	165.0	167.7	164.8	158.8
82.5°	103.3	106.4	107.8	107.6	103.7
85°	56.2	57.2	59.8	60.5	58.4
87.5°	21.7	23.2	23.8	25.6	23.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)