

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: P489198

Luminaire Tested: **CLM-24-2-INS-A19156-LD4-5LO-40-120-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: P489198
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-40-120-EDD-90
Description: 2X2 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

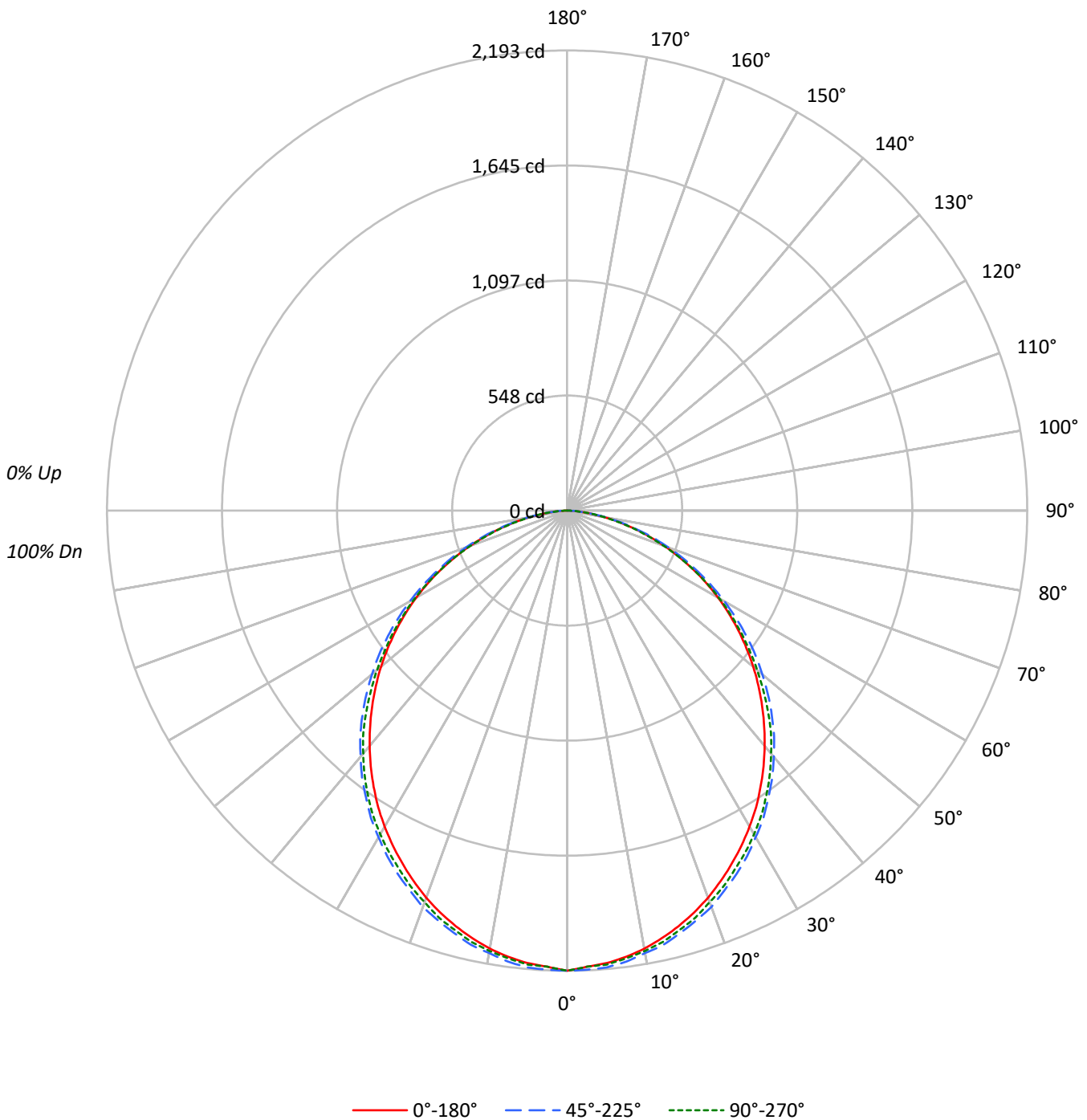
Lumens per Lamp: N/A
Luminaire Lumens: 5765.6 lumens
Efficiency: N/A
Efficacy: 98.6 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	5901	5901	5901
5°	5847	5902	5865
10°	5793	5852	5824
15°	5713	5805	5765
20°	5623	5757	5687
25°	5513	5673	5608
30°	5402	5585	5534
35°	5280	5490	5439
40°	5143	5380	5312
45°	4999	5251	5152
50°	4849	5083	4950
55°	4673	4891	4741
60°	4473	4659	4515
65°	4216	4378	4219
70°	3880	4036	3836
75°	3417	3570	3363
80°	2775	2896	2744
85°	1933	2059	2010



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	206.5	3.6
10°-20°	585.3	10.2
20°-30°	872.9	15.1
30°-40°	1034.4	17.9
40°-50°	1046.7	18.2
50°-60°	914.1	15.9
60°-70°	668.0	11.6
70°-80°	355.4	6.2
80°-90°	82.1	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°	1664.8	28.9
0°-40°	2699.2	46.8
0°-60°	4660.0	80.8
0°-90°	5765.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5765.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2193	2193	2193	2193	2193	
5°	2164	2169	2185	2190	2171	205
15°	2051	2064	2084	2096	2069	578
25°	1857	1880	1911	1918	1889	855
35°	1607	1632	1671	1683	1656	1005
45°	1314	1337	1380	1381	1354	1013
55°	996	1016	1043	1028	1011	890
65°	662	676	688	674	663	655
75°	329	336	343	331	324	349
85°	63	64	67	67	65	79
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2193.0	2193.0	2193.0	2193.0	2193.0
2.5°	2175.9	2183.0	2190.3	2193.5	2175.7
5°	2164.5	2168.6	2184.8	2189.8	2171.3
7.5°	2145.7	2151.9	2167.7	2170.0	2152.1
10°	2120.1	2131.1	2141.6	2153.0	2131.3
12.5°	2087.5	2102.3	2120.1	2122.2	2105.7
15°	2050.7	2064.4	2083.8	2096.4	2069.2
17.5°	2009.6	2022.8	2047.9	2050.2	2033.8
20°	1963.6	1980.1	2010.2	2015.5	1986.0
22.5°	1911.5	1933.7	1958.8	1963.9	1942.1
25°	1856.9	1879.8	1910.8	1917.9	1888.9
27.5°	1799.8	1821.7	1856.7	1861.7	1837.3
30°	1738.6	1759.1	1797.5	1806.0	1781.1
32.5°	1676.4	1697.0	1739.5	1746.6	1722.3
35°	1607.4	1632.5	1671.2	1682.8	1655.6
37.5°	1537.0	1561.5	1605.4	1615.9	1586.6
40°	1464.2	1488.4	1531.6	1540.2	1512.1
42.5°	1389.7	1413.9	1460.0	1461.4	1438.1
45°	1313.6	1336.9	1379.8	1381.0	1353.8
47.5°	1236.3	1259.9	1298.3	1293.9	1268.3
50°	1158.2	1180.6	1214.2	1205.5	1182.4
52.5°	1077.3	1099.0	1130.8	1116.6	1094.9
55°	996.0	1016.1	1042.6	1027.5	1010.6
57.5°	914.0	934.3	954.6	939.3	924.7
60°	831.2	849.1	865.7	850.2	839.0
62.5°	747.2	762.5	776.9	762.0	751.5
65°	662.2	675.6	687.5	673.8	662.6
67.5°	577.6	589.0	600.0	585.8	574.2
70°	493.1	502.9	513.0	498.3	487.6
72.5°	409.7	418.4	427.3	413.1	403.7
75°	328.6	336.1	343.4	330.9	323.5
77.5°	251.1	257.5	262.5	254.5	247.5
80°	179.1	183.9	186.9	183.7	177.1
82.5°	115.2	118.6	120.2	120.0	115.6
85°	62.6	63.7	66.7	67.4	65.1
87.5°	24.2	25.8	26.5	28.6	26.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)