

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: P489069

Luminaire Tested: **CLM-24-2-INS-A19156-LD4-1STD-50-120-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: P489069
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-LD4-1STD-50-120-EDD
Description: 2X2 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

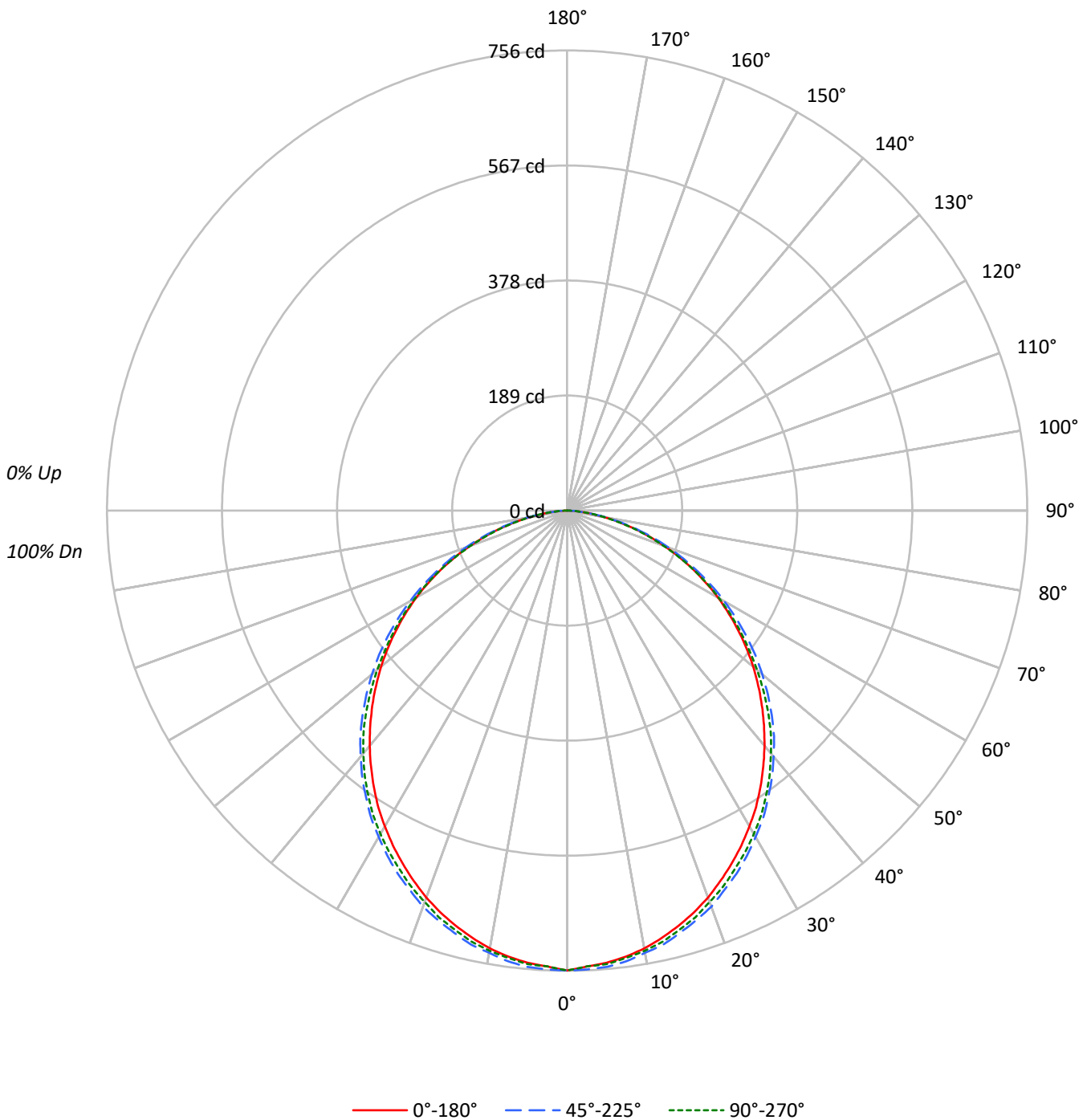
Lumens per Lamp: N/A
Luminaire Lumens: 1986.2 lumens
Efficiency: N/A
Efficacy: 119.6 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 16.6
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°	2033	2033	2033
5°	2014	2033	2021
10°	1996	2016	2006
15°	1968	2000	1986
20°	1937	1983	1959
25°	1899	1955	1932
30°	1861	1924	1907
35°	1819	1891	1873
40°	1772	1853	1830
45°	1722	1809	1775
50°	1670	1751	1705
55°	1610	1685	1633
60°	1541	1605	1555
65°	1452	1508	1454
70°	1337	1390	1322
75°	1177	1230	1159
80°	956	998	945
85°	667	710	692



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	71.1	3.6
10°-20°	201.6	10.2
20°-30°	300.7	15.1
30°-40°	356.3	17.9
40°-50°	360.6	18.2
50°-60°	314.9	15.9
60°-70°	230.1	11.6
70°-80°	122.4	6.2
80°-90°	28.3	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°	573.5	28.9
0°-40°	929.8	46.8
0°-60°	1605.3	80.8
0°-90°	1986.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1986.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	756	756	756	756	756	
5°	746	747	753	754	748	71
15°	706	711	718	722	713	199
25°	640	648	658	661	651	295
35°	554	562	576	580	570	346
45°	452	460	475	476	466	349
55°	343	350	359	354	348	307
65°	228	233	237	232	228	226
75°	113	116	118	114	112	120
85°	22	22	23	23	22	27
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	755.5	755.5	755.5	755.5	755.5
2.5°	749.6	752.0	754.5	755.6	749.5
5°	745.6	747.1	752.6	754.4	748.0
7.5°	739.2	741.3	746.7	747.5	741.4
10°	730.4	734.1	737.8	741.7	734.2
12.5°	719.1	724.2	730.4	731.1	725.4
15°	706.4	711.2	717.9	722.2	712.8
17.5°	692.3	696.8	705.5	706.3	700.6
20°	676.5	682.1	692.5	694.3	684.2
22.5°	658.5	666.1	674.8	676.5	669.1
25°	639.7	647.6	658.3	660.7	650.7
27.5°	620.0	627.6	639.6	641.3	632.9
30°	598.9	606.0	619.2	622.1	613.6
32.5°	577.5	584.6	599.2	601.7	593.3
35°	553.7	562.4	575.7	579.7	570.3
37.5°	529.5	537.9	553.0	556.7	546.6
40°	504.4	512.7	527.6	530.6	520.9
42.5°	478.7	487.1	503.0	503.4	495.4
45°	452.5	460.5	475.3	475.7	466.4
47.5°	425.9	434.0	447.2	445.7	436.9
50°	399.0	406.7	418.3	415.3	407.3
52.5°	371.1	378.6	389.5	384.7	377.2
55°	343.1	350.0	359.2	354.0	348.1
57.5°	314.8	321.9	328.9	323.6	318.5
60°	286.4	292.5	298.2	292.9	289.0
62.5°	257.4	262.7	267.6	262.5	258.9
65°	228.1	232.8	236.8	232.1	228.3
67.5°	199.0	202.9	206.7	201.8	197.8
70°	169.9	173.2	176.7	171.7	168.0
72.5°	141.1	144.1	147.2	142.3	139.1
75°	113.2	115.8	118.3	114.0	111.5
77.5°	86.5	88.7	90.4	87.7	85.2
80°	61.7	63.4	64.4	63.3	61.0
82.5°	39.7	40.9	41.4	41.3	39.8
85°	21.6	22.0	23.0	23.2	22.4
87.5°	8.3	8.9	9.1	9.8	9.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)