

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: P488410

Luminaire Tested: **CLM-12-2-INS-A19156-LD4-1STD-20-120-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: P488410
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-12-2-INS-A19156-LD4-1STD-20-120-EDD-90
Description: 1X2 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

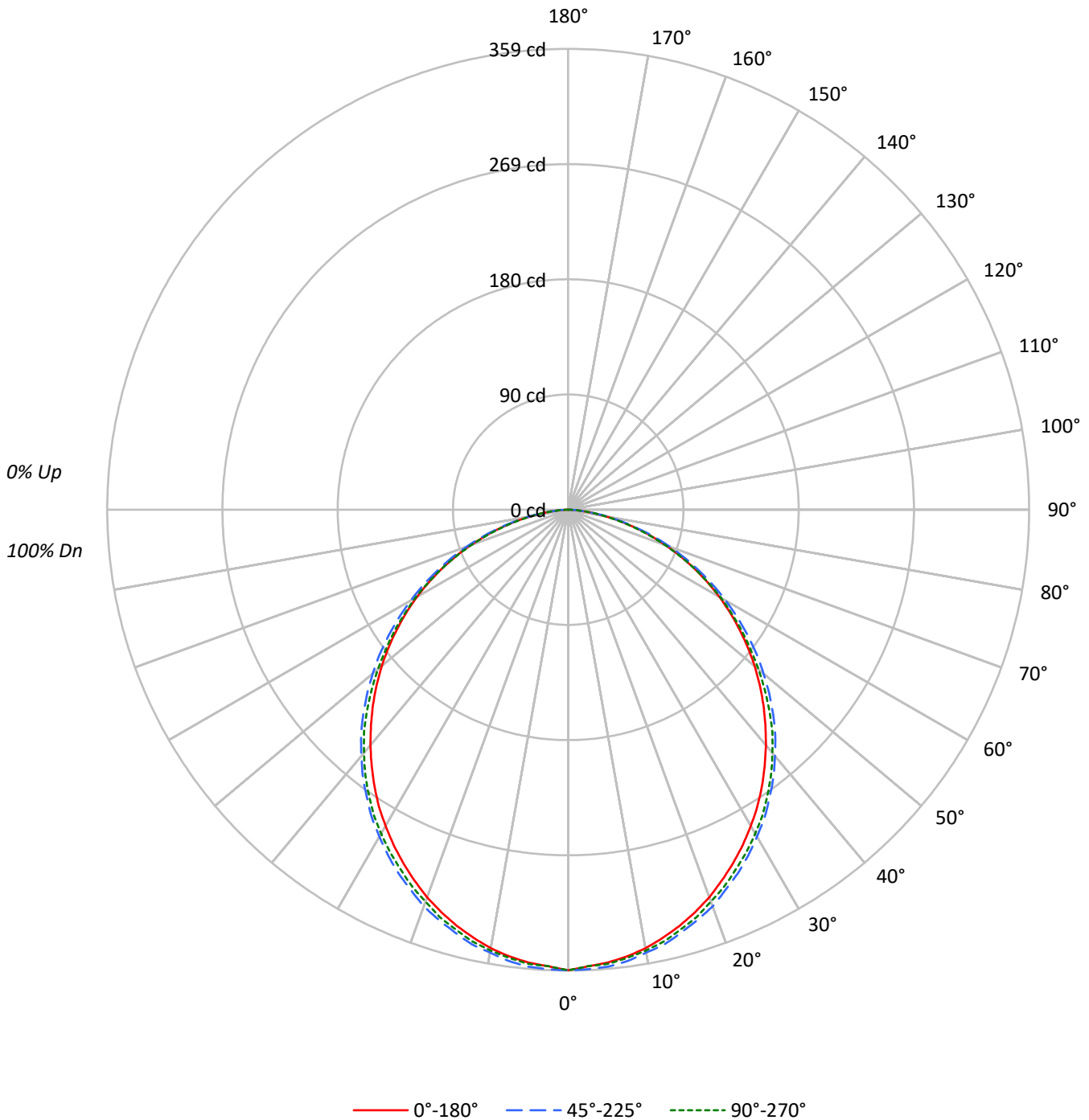
Lumens per Lamp: N/A
Luminaire Lumens: 943.2 lumens
Efficiency: N/A
Efficacy: 56.8 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 16.6
Input Voltage (V): NR
Input Current (A_{in}): 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°	1931	1931	1931
5°	1913	1931	1919
10°	1895	1914	1906
15°	1869	1899	1886
20°	1840	1884	1861
25°	1804	1856	1835
30°	1767	1828	1811
35°	1728	1796	1779
40°	1683	1760	1738
45°	1636	1718	1686
50°	1587	1663	1619
55°	1529	1601	1551
60°	1464	1524	1478
65°	1379	1433	1380
70°	1270	1320	1256
75°	1119	1169	1100
80°	908	948	899
85°	630	673	661



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	33.8	3.6
10°-20°	95.7	10.2
20°-30°	142.8	15.1
30°-40°	169.2	17.9
40°-50°	171.2	18.2
50°-60°	149.5	15.9
60°-70°	109.3	11.6
70°-80°	58.1	6.2
80°-90°	13.4	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°	272.3	28.9
0°-40°	441.6	46.8
0°-60°	762.3	80.8
0°-90°	943.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	943.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	359	359	359	359	359	
5°	354	355	357	358	355	34
15°	336	338	341	343	338	95
25°	304	308	313	314	309	140
35°	263	267	273	275	271	164
45°	215	219	226	226	222	166
55°	163	166	171	168	165	146
65°	108	110	112	110	108	107
75°	54	55	56	54	53	57
85°	10	10	11	11	11	13
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	358.8	358.8	358.8	358.8	358.8
2.5°	356.0	357.1	358.3	358.8	355.9
5°	354.1	354.8	357.4	358.2	355.2
7.5°	351.0	352.0	354.6	355.0	352.1
10°	346.8	348.6	350.3	352.2	348.7
12.5°	341.5	343.9	346.8	347.2	344.5
15°	335.5	337.7	340.9	342.9	338.5
17.5°	328.7	330.9	335.0	335.4	332.7
20°	321.2	323.9	328.9	329.7	324.9
22.5°	312.7	316.3	320.4	321.3	317.7
25°	303.8	307.5	312.6	313.8	309.0
27.5°	294.4	298.0	303.7	304.6	300.6
30°	284.4	287.8	294.1	295.4	291.4
32.5°	274.2	277.6	284.6	285.7	281.8
35°	263.0	267.1	273.4	275.3	270.8
37.5°	251.4	255.4	262.6	264.3	259.6
40°	239.5	243.5	250.5	252.0	247.4
42.5°	227.3	231.3	238.8	239.1	235.3
45°	214.9	218.7	225.7	225.9	221.5
47.5°	202.3	206.1	212.4	211.7	207.5
50°	189.5	193.1	198.6	197.2	193.4
52.5°	176.2	179.8	185.0	182.7	179.1
55°	162.9	166.2	170.6	168.1	165.3
57.5°	149.5	152.8	156.2	153.7	151.3
60°	136.0	138.9	141.6	139.1	137.3
62.5°	122.2	124.7	127.1	124.7	122.9
65°	108.3	110.5	112.5	110.2	108.4
67.5°	94.5	96.4	98.2	95.8	93.9
70°	80.7	82.3	83.9	81.5	79.8
72.5°	67.0	68.4	69.9	67.6	66.0
75°	53.8	55.0	56.2	54.1	52.9
77.5°	41.1	42.1	42.9	41.6	40.5
80°	29.3	30.1	30.6	30.1	29.0
82.5°	18.8	19.4	19.7	19.6	18.9
85°	10.2	10.4	10.9	11.0	10.7
87.5°	4.0	4.2	4.3	4.7	4.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)