

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: P489062

Luminaire Tested: **CLM-24-2-INS-A19156-LD4-1STD-30-120-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: P489062
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-30-120-EDD-90
Description: 2X2 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

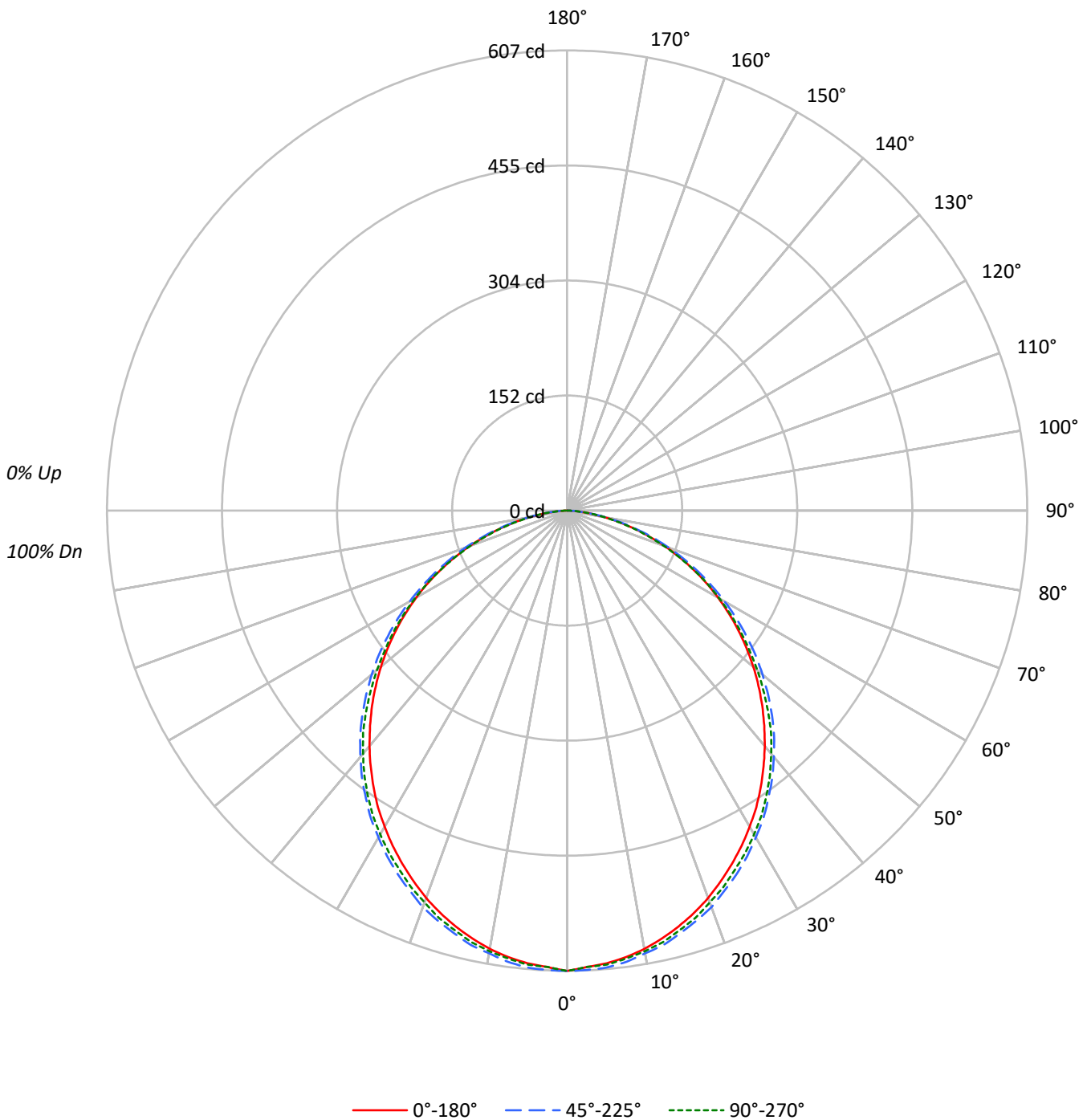
Lumens per Lamp: N/A
Luminaire Lumens: 1596.7 lumens
Efficiency: N/A
Efficacy: 96.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	1634	1634	1634
5°	1619	1634	1624
10°	1604	1621	1613
15°	1582	1608	1596
20°	1557	1594	1575
25°	1527	1571	1553
30°	1496	1547	1533
35°	1463	1520	1506
40°	1424	1490	1471
45°	1384	1454	1427
50°	1343	1408	1371
55°	1294	1354	1313
60°	1239	1291	1251
65°	1168	1212	1168
70°	1075	1118	1062
75°	946	989	932
80°	769	803	759
85°	534	571	556



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	57.2	3.6
10°-20°	162.1	10.2
20°-30°	241.7	15.1
30°-40°	286.5	17.9
40°-50°	289.9	18.2
50°-60°	253.2	15.9
60°-70°	185.0	11.6
70°-80°	98.4	6.2
80°-90°	22.8	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°	461.0	28.9
0°-40°	747.5	46.8
0°-60°	1290.5	80.8
0°-90°	1596.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1596.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	607	607	607	607	607	
5°	599	601	605	606	601	57
15°	568	572	577	581	573	160
25°	514	521	529	531	523	237
35°	445	452	463	466	458	278
45°	364	370	382	382	375	281
55°	276	281	289	285	280	247
65°	183	187	190	187	184	181
75°	91	93	95	92	90	97
85°	17	18	18	19	18	22
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	607.3	607.3	607.3	607.3	607.3
2.5°	602.6	604.5	606.6	607.5	602.5
5°	599.4	600.6	605.0	606.4	601.3
7.5°	594.2	595.9	600.3	600.9	596.0
10°	587.1	590.2	593.1	596.3	590.2
12.5°	578.1	582.2	587.1	587.7	583.2
15°	567.9	571.7	577.1	580.6	573.0
17.5°	556.5	560.2	567.1	567.8	563.2
20°	543.8	548.4	556.7	558.2	550.0
22.5°	529.4	535.5	542.5	543.9	537.9
25°	514.2	520.6	529.2	531.1	523.1
27.5°	498.4	504.5	514.2	515.6	508.8
30°	481.5	487.2	497.8	500.1	493.2
32.5°	464.3	470.0	481.7	483.7	477.0
35°	445.2	452.1	462.8	466.0	458.5
37.5°	425.7	432.4	444.6	447.5	439.4
40°	405.5	412.2	424.1	426.5	418.8
42.5°	384.8	391.6	404.3	404.7	398.3
45°	363.8	370.2	382.1	382.4	374.9
47.5°	342.4	348.9	359.5	358.3	351.2
50°	320.7	326.9	336.3	333.8	327.5
52.5°	298.3	304.4	313.2	309.2	303.2
55°	275.8	281.4	288.7	284.6	279.9
57.5°	253.1	258.7	264.4	260.1	256.1
60°	230.2	235.1	239.8	235.5	232.4
62.5°	206.9	211.2	215.1	211.0	208.1
65°	183.4	187.1	190.4	186.6	183.5
67.5°	160.0	163.1	166.2	162.2	159.0
70°	136.6	139.3	142.1	138.0	135.0
72.5°	113.5	115.9	118.3	114.4	111.8
75°	91.0	93.1	95.1	91.6	89.6
77.5°	69.5	71.3	72.7	70.5	68.5
80°	49.6	50.9	51.8	50.9	49.0
82.5°	31.9	32.8	33.3	33.2	32.0
85°	17.3	17.7	18.5	18.7	18.0
87.5°	6.7	7.2	7.3	7.9	7.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)