

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: P489048

Luminaire Tested: **CLM-24-2-INS-A19156-LD4-1LO-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: P489048
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-LD4-1LO-27-120-EDD-90
Description: 2X2 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

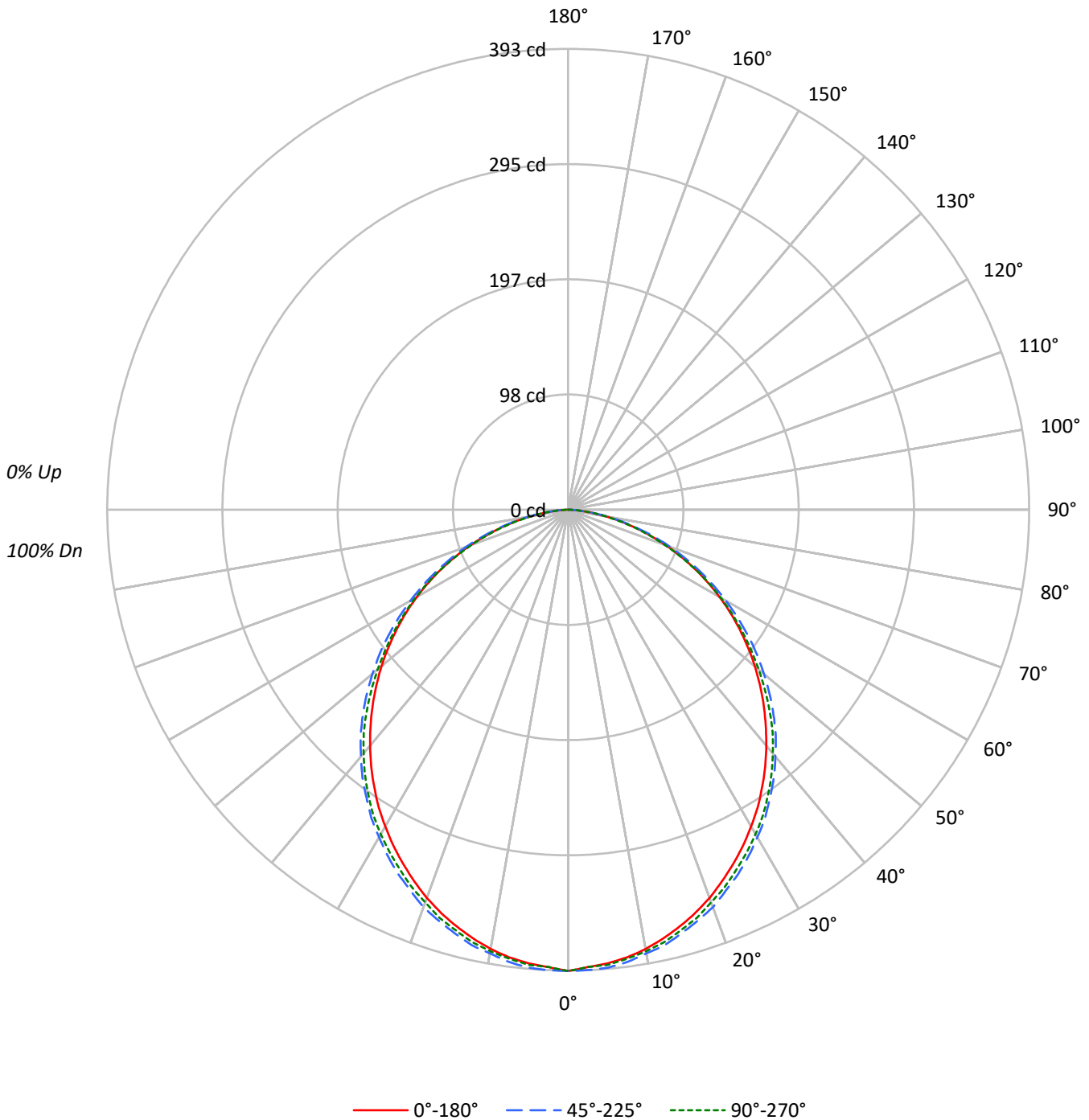
Lumens per Lamp: N/A
Luminaire Lumens: 1034.4 lumens
Efficiency: N/A
Efficacy: 88.4 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 11.7
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

TEST NUMBER: P489048

CATALOG NUMBER: CLM-24-2-INS-A19156-LD4-1LO-27-120-EDD-90

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°	1059	1059	1059
5°	1049	1059	1052
10°	1039	1050	1045
15°	1025	1042	1034
20°	1009	1033	1020
25°	989	1018	1006
30°	969	1002	993
35°	947	985	976
40°	923	965	953
45°	897	942	924
50°	870	912	888
55°	838	878	851
60°	802	836	810
65°	756	785	757
70°	696	724	688
75°	612	640	603
80°	497	519	493
85°	346	371	361



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	37.1	3.6
10°-20°	105.0	10.2
20°-30°	156.6	15.1
30°-40°	185.6	17.9
40°-50°	187.8	18.2
50°-60°	164.0	15.9
60°-70°	119.8	11.6
70°-80°	63.8	6.2
80°-90°	14.7	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°	298.7	28.9
0°-40°	484.2	46.8
0°-60°	836.0	80.8
0°-90°	1034.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1034.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	393	393	393	393	393	
5°	388	389	392	393	390	37
15°	368	370	374	376	371	104
25°	333	337	343	344	339	153
35°	288	293	300	302	297	180
45°	236	240	248	248	243	182
55°	179	182	187	184	181	160
65°	119	121	123	121	119	118
75°	59	60	62	59	58	63
85°	11	11	12	12	12	14
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	393.4	393.4	393.4	393.4	393.4
2.5°	390.4	391.6	393.0	393.5	390.3
5°	388.3	389.1	392.0	392.9	389.6
7.5°	385.0	386.1	388.9	389.3	386.1
10°	380.4	382.3	384.2	386.3	382.4
12.5°	374.5	377.2	380.4	380.7	377.8
15°	367.9	370.4	373.9	376.1	371.2
17.5°	360.5	362.9	367.4	367.8	364.9
20°	352.3	355.2	360.7	361.6	356.3
22.5°	342.9	346.9	351.4	352.3	348.4
25°	333.1	337.2	342.8	344.1	338.9
27.5°	322.9	326.8	333.1	334.0	329.6
30°	311.9	315.6	322.5	324.0	319.5
32.5°	300.8	304.5	312.1	313.3	309.0
35°	288.4	292.9	299.8	301.9	297.0
37.5°	275.8	280.1	288.0	289.9	284.7
40°	262.7	267.0	274.8	276.3	271.3
42.5°	249.3	253.7	261.9	262.2	258.0
45°	235.7	239.8	247.6	247.8	242.9
47.5°	221.8	226.0	232.9	232.1	227.6
50°	207.8	211.8	217.8	216.3	212.1
52.5°	193.3	197.2	202.9	200.3	196.4
55°	178.7	182.3	187.1	184.3	181.3
57.5°	164.0	167.6	171.3	168.5	165.9
60°	149.1	152.3	155.3	152.5	150.5
62.5°	134.0	136.8	139.4	136.7	134.8
65°	118.8	121.2	123.3	120.9	118.9
67.5°	103.6	105.7	107.6	105.1	103.0
70°	88.5	90.2	92.0	89.4	87.5
72.5°	73.5	75.1	76.7	74.1	72.4
75°	58.9	60.3	61.6	59.4	58.0
77.5°	45.1	46.2	47.1	45.7	44.4
80°	32.1	33.0	33.5	33.0	31.8
82.5°	20.7	21.3	21.6	21.5	20.7
85°	11.2	11.4	12.0	12.1	11.7
87.5°	4.3	4.6	4.8	5.1	4.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)