

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: P488657

Luminaire Tested: **CLM-12-4-INS-A19156-LD4-1LO-35-120-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: P488657
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-12-4-INS-A19156-LD4-1LO-35-120-EDD
Description: 1X4 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

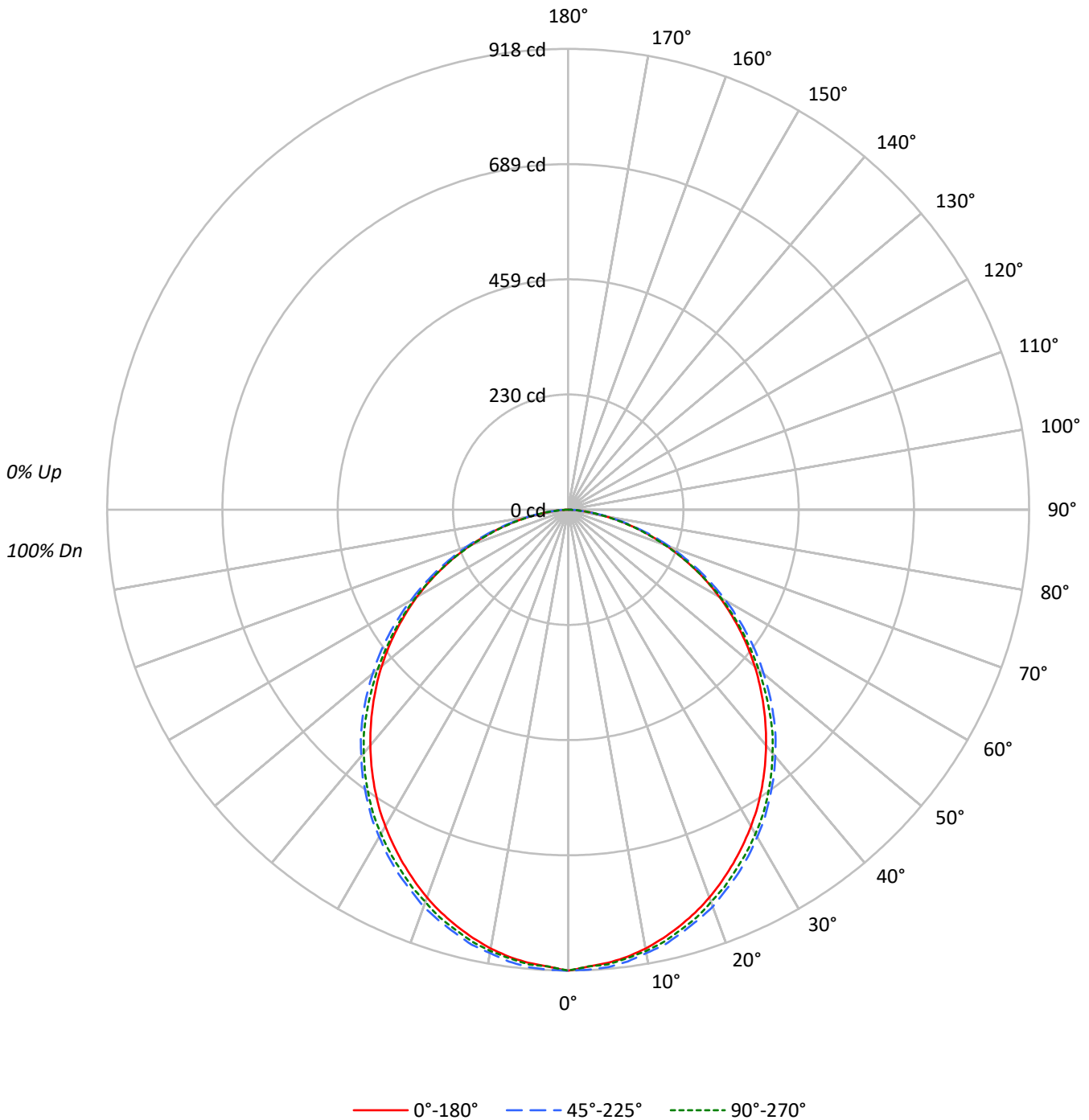
Lumens per Lamp: N/A
Luminaire Lumens: 2414.0 lumens
Efficiency: N/A
Efficacy: 103.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 23.4
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: P488657

CATALOG NUMBER: CLM-12-4-INS-A19156-LD4-1LO-35-120-EDD

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°	2471	2471	2471
5°	2448	2471	2456
10°	2426	2450	2438
15°	2392	2431	2413
20°	2355	2410	2381
25°	2309	2376	2348
30°	2262	2339	2317
35°	2211	2299	2277
40°	2153	2252	2224
45°	2093	2199	2157
50°	2030	2128	2073
55°	1956	2048	1985
60°	1873	1951	1891
65°	1765	1833	1766
70°	1624	1690	1607
75°	1431	1495	1409
80°	1162	1213	1148
85°	809	861	843



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	86.5	3.6
10°-20°	245.1	10.2
20°-30°	365.5	15.1
30°-40°	433.1	17.9
40°-50°	438.2	18.2
50°-60°	382.7	15.9
60°-70°	279.7	11.6
70°-80°	148.8	6.2
80°-90°	34.4	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°	697.0	28.9
0°-40°	1130.1	46.8
0°-60°	1951.1	80.8
0°-90°	2414.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2414.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	918	918	918	918	918	
5°	906	908	915	917	909	86
15°	859	864	872	878	866	242
25°	778	787	800	803	791	358
35°	673	684	700	705	693	421
45°	550	560	578	578	567	424
55°	417	425	436	430	423	373
65°	277	283	288	282	277	274
75°	138	141	144	138	136	146
85°	26	27	28	28	27	33
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	918.2	918.2	918.2	918.2	918.2
2.5°	911.0	914.0	917.1	918.4	910.9
5°	906.2	908.0	914.8	916.9	909.1
7.5°	898.4	901.0	907.6	908.5	901.1
10°	887.7	892.3	896.7	901.5	892.4
12.5°	874.0	880.2	887.7	888.5	881.7
15°	858.6	864.3	872.5	877.7	866.3
17.5°	841.4	846.9	857.5	858.4	851.5
20°	822.2	829.0	841.7	843.9	831.5
22.5°	800.3	809.6	820.1	822.2	813.2
25°	777.5	787.0	800.1	803.0	790.9
27.5°	753.6	762.7	777.4	779.5	769.2
30°	727.9	736.5	752.6	756.1	745.7
32.5°	701.9	710.5	728.3	731.3	721.1
35°	673.0	683.5	699.7	704.6	693.2
37.5°	643.5	653.8	672.1	676.5	664.3
40°	613.0	623.2	641.2	644.9	633.1
42.5°	581.8	592.0	611.3	611.9	602.1
45°	550.0	559.7	577.7	578.2	566.8
47.5°	517.6	527.5	543.6	541.8	531.0
50°	484.9	494.3	508.4	504.7	495.1
52.5°	451.1	460.2	473.4	467.5	458.4
55°	417.0	425.4	436.5	430.2	423.1
57.5°	382.7	391.2	399.7	393.3	387.2
60°	348.0	355.5	362.5	356.0	351.3
62.5°	312.8	319.2	325.3	319.0	314.6
65°	277.2	282.9	287.9	282.1	277.4
67.5°	241.8	246.6	251.2	245.3	240.4
70°	206.4	210.6	214.8	208.6	204.2
72.5°	171.5	175.2	178.9	173.0	169.0
75°	137.6	140.7	143.8	138.5	135.5
77.5°	105.1	107.8	109.9	106.6	103.6
80°	75.0	77.0	78.3	76.9	74.1
82.5°	48.2	49.7	50.3	50.2	48.4
85°	26.2	26.7	27.9	28.2	27.3
87.5°	10.1	10.8	11.1	12.0	11.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)