

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: P488661

Luminaire Tested: **CLM-12-4-INS-A19156-LD4-1LO-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: P488661
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-50-120-EDD
Description: 1X4 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

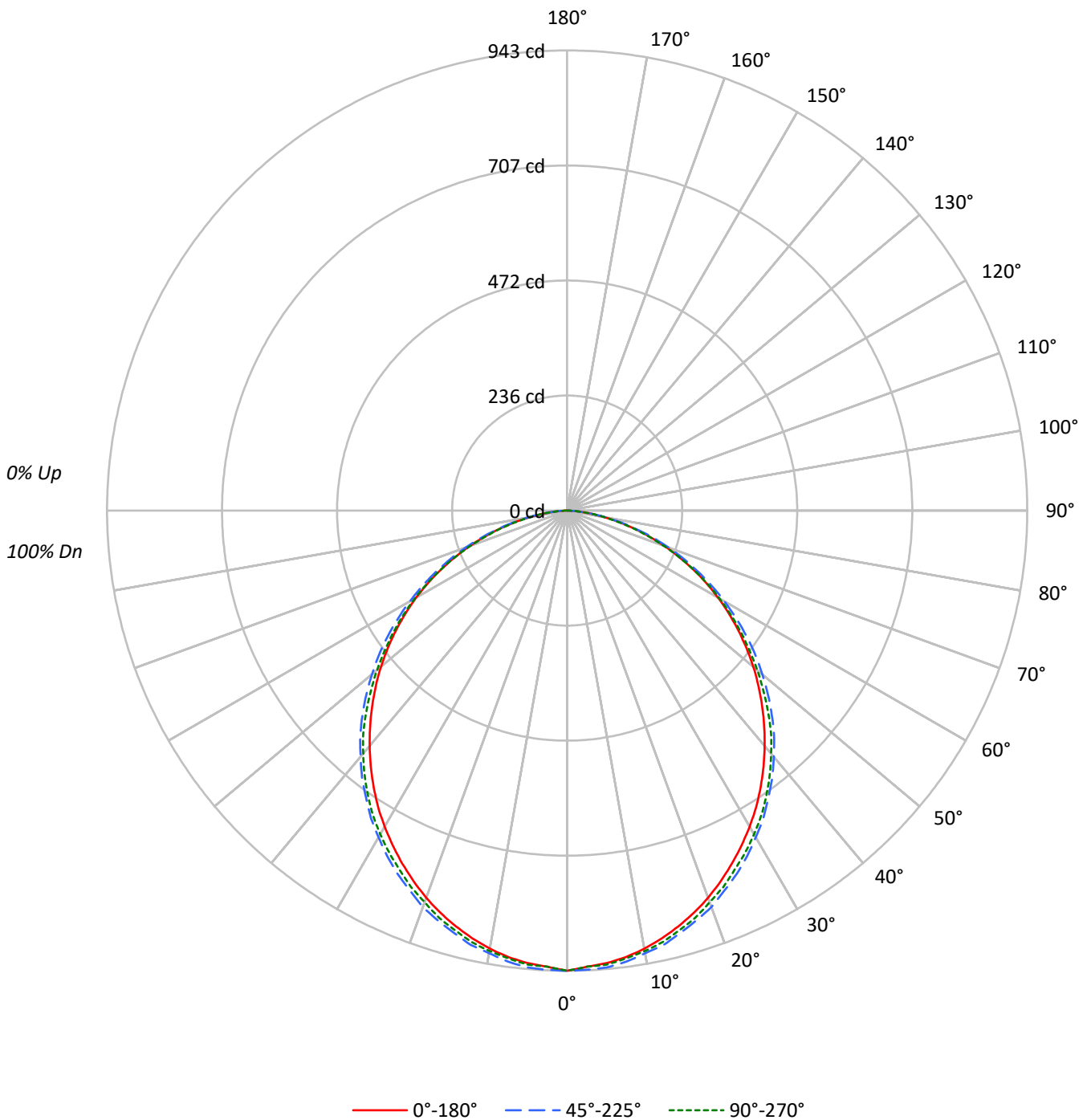
Lumens per Lamp: N/A
Luminaire Lumens: 2479.5 lumens
Efficiency: N/A
Efficacy: 106.0 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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

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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°	2538	2538	2538
5°	2514	2538	2522
10°	2491	2517	2505
15°	2457	2496	2479
20°	2418	2476	2446
25°	2371	2440	2412
30°	2323	2402	2380
35°	2271	2361	2339
40°	2212	2314	2284
45°	2150	2258	2216
50°	2085	2186	2129
55°	2009	2104	2039
60°	1924	2004	1942
65°	1813	1883	1815
70°	1668	1736	1650
75°	1469	1536	1446
80°	1193	1246	1181
85°	831	886	865



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	88.8	3.6
10°-20°	251.7	10.2
20°-30°	375.4	15.1
30°-40°	444.9	17.9
40°-50°	450.1	18.2
50°-60°	393.1	15.9
60°-70°	287.3	11.6
70°-80°	152.9	6.2
80°-90°	35.3	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°	715.9	28.9
0°-40°	1160.8	46.8
0°-60°	2004.0	80.8
0°-90°	2479.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2479.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	943	943	943	943	943	
5°	931	933	940	942	934	88
15°	882	888	896	902	890	249
25°	799	808	822	825	812	368
35°	691	702	719	724	712	432
45°	565	575	593	594	582	436
55°	428	437	448	442	435	383
65°	285	291	296	290	285	282
75°	141	144	148	142	139	150
85°	27	27	29	29	28	34
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	943.1	943.1	943.1	943.1	943.1
2.5°	935.7	938.8	941.9	943.3	935.6
5°	930.8	932.6	939.6	941.7	933.8
7.5°	922.8	925.4	932.2	933.2	925.5
10°	911.8	916.5	921.0	925.9	916.6
12.5°	897.7	904.1	911.8	912.7	905.6
15°	881.9	887.8	896.1	901.5	889.9
17.5°	864.2	869.9	880.7	881.7	874.6
20°	844.5	851.5	864.5	866.8	854.1
22.5°	822.1	831.6	842.4	844.6	835.2
25°	798.6	808.4	821.8	824.8	812.3
27.5°	774.0	783.4	798.5	800.6	790.1
30°	747.7	756.5	773.0	776.7	765.9
32.5°	720.9	729.8	748.1	751.1	740.7
35°	691.3	702.1	718.7	723.7	712.0
37.5°	661.0	671.5	690.4	694.9	682.3
40°	629.7	640.1	658.6	662.4	650.3
42.5°	597.6	608.0	627.9	628.5	618.5
45°	564.9	574.9	593.4	593.9	582.2
47.5°	531.7	541.8	558.3	556.5	545.4
50°	498.1	507.7	522.2	518.4	508.5
52.5°	463.3	472.6	486.3	480.2	470.9
55°	428.3	437.0	448.4	441.9	434.6
57.5°	393.0	401.8	410.5	404.0	397.7
60°	357.5	365.1	372.3	365.6	360.8
62.5°	321.3	327.9	334.1	327.7	323.2
65°	284.8	290.6	295.7	289.8	285.0
67.5°	248.4	253.3	258.0	251.9	246.9
70°	212.0	216.3	220.6	214.3	209.7
72.5°	176.2	179.9	183.7	177.7	173.6
75°	141.3	144.5	147.7	142.3	139.1
77.5°	108.0	110.7	112.9	109.5	106.4
80°	77.0	79.1	80.4	79.0	76.2
82.5°	49.5	51.0	51.7	51.6	49.7
85°	26.9	27.4	28.7	29.0	28.0
87.5°	10.4	11.1	11.4	12.3	11.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)