

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: P489043

Luminaire Tested: **CLM-24-2-INS-A19156-LD4-1HI-40-120-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: P489043
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-LD4-1HI-40-120-EDD
Description: 2X2 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

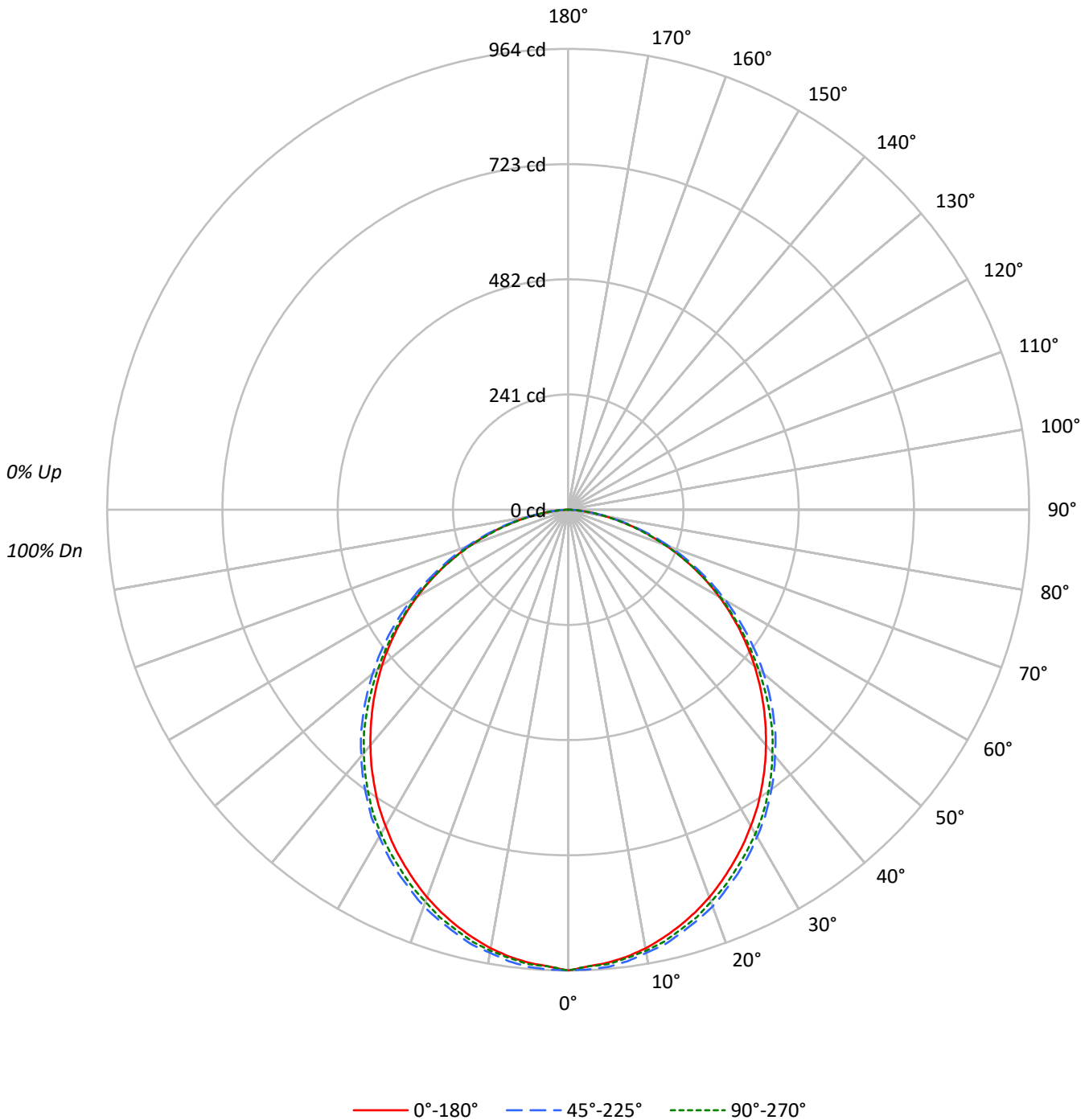
Lumens per Lamp: N/A
Luminaire Lumens: 2533.7 lumens
Efficiency: N/A
Efficacy: 117.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 21.6
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°	2593	2593	2593
5°	2569	2593	2578
10°	2546	2572	2559
15°	2511	2551	2533
20°	2471	2530	2499
25°	2423	2493	2465
30°	2374	2454	2432
35°	2321	2413	2390
40°	2260	2364	2334
45°	2197	2308	2264
50°	2131	2234	2175
55°	2054	2150	2084
60°	1966	2048	1984
65°	1853	1924	1854
70°	1705	1773	1686
75°	1501	1569	1478
80°	1220	1272	1206
85°	849	905	883



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	90.8	3.6
10°-20°	257.2	10.2
20°-30°	383.6	15.1
30°-40°	454.6	17.9
40°-50°	460.0	18.2
50°-60°	401.7	15.9
60°-70°	293.6	11.6
70°-80°	156.2	6.2
80°-90°	36.1	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°	731.6	28.9
0°-40°	1186.2	46.8
0°-60°	2047.8	80.8
0°-90°	2533.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2533.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	964	964	964	964	964	
5°	951	953	960	962	954	90
15°	901	907	916	921	909	254
25°	816	826	840	843	830	376
35°	706	717	734	740	728	442
45°	577	588	606	607	595	445
55°	438	446	458	452	444	391
65°	291	297	302	296	291	288
75°	144	148	151	145	142	153
85°	28	28	29	30	29	35
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	963.7	963.7	963.7	963.7	963.7
2.5°	956.2	959.3	962.5	963.9	956.1
5°	951.2	953.0	960.1	962.3	954.2
7.5°	942.9	945.7	952.6	953.6	945.8
10°	931.7	936.5	941.1	946.2	936.6
12.5°	917.3	923.9	931.7	932.6	925.4
15°	901.2	907.2	915.7	921.3	909.3
17.5°	883.1	888.9	900.0	901.0	893.7
20°	862.9	870.1	883.4	885.7	872.8
22.5°	840.0	849.8	860.8	863.0	853.5
25°	816.0	826.1	839.7	842.8	830.1
27.5°	790.9	800.6	815.9	818.1	807.4
30°	764.0	773.1	789.9	793.6	782.7
32.5°	736.7	745.7	764.4	767.5	756.9
35°	706.4	717.4	734.4	739.5	727.6
37.5°	675.5	686.2	705.5	710.1	697.2
40°	643.4	654.1	673.0	676.9	664.5
42.5°	610.7	621.3	641.6	642.2	632.0
45°	577.3	587.5	606.4	606.9	594.9
47.5°	543.3	553.7	570.5	568.6	557.4
50°	509.0	518.8	533.6	529.8	519.6
52.5°	473.4	483.0	496.9	490.7	481.2
55°	437.7	446.5	458.2	451.5	444.1
57.5°	401.6	410.6	419.5	412.8	406.4
60°	365.3	373.1	380.5	373.6	368.7
62.5°	328.3	335.1	341.4	334.9	330.2
65°	291.0	296.9	302.1	296.1	291.2
67.5°	253.8	258.9	263.7	257.4	252.3
70°	216.7	221.0	225.4	219.0	214.3
72.5°	180.0	183.8	187.8	181.5	177.4
75°	144.4	147.7	150.9	145.4	142.2
77.5°	110.3	113.2	115.4	111.9	108.7
80°	78.7	80.8	82.1	80.7	77.8
82.5°	50.6	52.1	52.8	52.7	50.8
85°	27.5	28.0	29.3	29.6	28.6
87.5°	10.6	11.3	11.6	12.6	11.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)