

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: P489041

Luminaire Tested: **CLM-24-2-INS-A19156-LD4-1HI-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: P489041
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-35-120-EDD
Description: 2X2 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

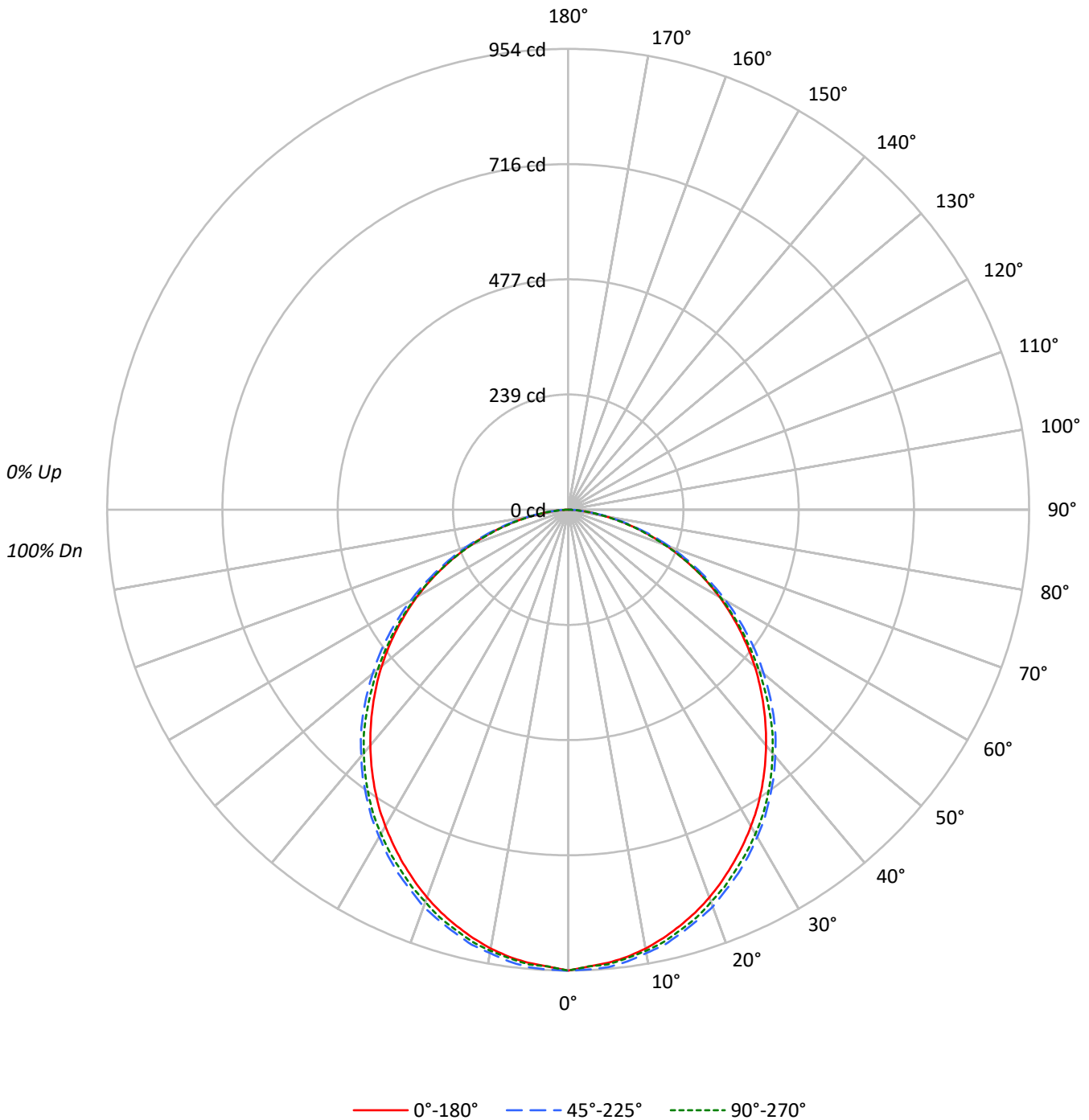
Lumens per Lamp: N/A
Luminaire Lumens: 2508.6 lumens
Efficiency: N/A
Efficacy: 116.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	2568	2568	2568
5°	2544	2568	2552
10°	2521	2546	2534
15°	2486	2526	2508
20°	2447	2505	2475
25°	2399	2469	2440
30°	2350	2430	2408
35°	2298	2389	2367
40°	2238	2341	2311
45°	2175	2285	2242
50°	2110	2212	2154
55°	2033	2128	2063
60°	1947	2027	1965
65°	1834	1904	1836
70°	1688	1756	1670
75°	1487	1553	1464
80°	1207	1260	1193
85°	840	895	874



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	89.9	3.6
10°-20°	254.7	10.2
20°-30°	379.8	15.1
30°-40°	450.1	17.9
40°-50°	455.4	18.2
50°-60°	397.7	15.9
60°-70°	290.6	11.6
70°-80°	154.6	6.2
80°-90°	35.7	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°	724.3	28.9
0°-40°	1174.4	46.8
0°-60°	2027.6	80.8
0°-90°	2508.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2508.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	954	954	954	954	954	
5°	942	944	951	953	945	89
15°	892	898	907	912	900	252
25°	808	818	831	834	822	372
35°	699	710	727	732	720	437
45°	572	582	600	601	589	441
55°	433	442	454	447	440	387
65°	288	294	299	293	288	285
75°	143	146	149	144	141	152
85°	27	28	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°	954.2	954.2	954.2	954.2	954.2
2.5°	946.7	949.8	953.0	954.4	946.6
5°	941.8	943.5	950.6	952.8	944.7
7.5°	933.6	936.3	943.1	944.1	936.4
10°	922.5	927.2	931.8	936.8	927.3
12.5°	908.3	914.7	922.5	923.4	916.2
15°	892.2	898.2	906.7	912.1	900.3
17.5°	874.4	880.1	891.1	892.0	884.9
20°	854.4	861.5	874.7	876.9	864.1
22.5°	831.7	841.3	852.3	854.5	845.0
25°	807.9	817.9	831.4	834.5	821.9
27.5°	783.1	792.6	807.8	810.0	799.4
30°	756.4	765.4	782.1	785.8	774.9
32.5°	729.4	738.4	756.8	759.9	749.4
35°	699.4	710.3	727.1	732.2	720.4
37.5°	668.8	679.4	698.5	703.1	690.3
40°	637.0	647.6	666.4	670.2	657.9
42.5°	604.6	615.2	635.3	635.9	625.7
45°	571.5	581.7	600.4	600.9	589.0
47.5°	537.9	548.2	564.9	563.0	551.9
50°	503.9	513.7	528.3	524.5	514.5
52.5°	468.7	478.2	492.0	485.8	476.4
55°	433.3	442.1	453.6	447.1	439.7
57.5°	397.7	406.5	415.4	408.7	402.3
60°	361.7	369.4	376.7	369.9	365.1
62.5°	325.1	331.7	338.0	331.5	327.0
65°	288.1	294.0	299.1	293.2	288.3
67.5°	251.3	256.3	261.1	254.9	249.8
70°	214.5	218.8	223.2	216.8	212.2
72.5°	178.3	182.0	185.9	179.7	175.7
75°	143.0	146.2	149.4	144.0	140.8
77.5°	109.3	112.0	114.2	110.7	107.7
80°	77.9	80.0	81.3	79.9	77.0
82.5°	50.1	51.6	52.3	52.2	50.3
85°	27.2	27.7	29.0	29.3	28.3
87.5°	10.5	11.2	11.5	12.4	11.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)