

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: P489183

Luminaire Tested: **CLM-24-2-INS-A19156-LD4-5HI-30-120-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: P489183
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-LD4-5HI-30-120-EDD
Description: 2X2 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

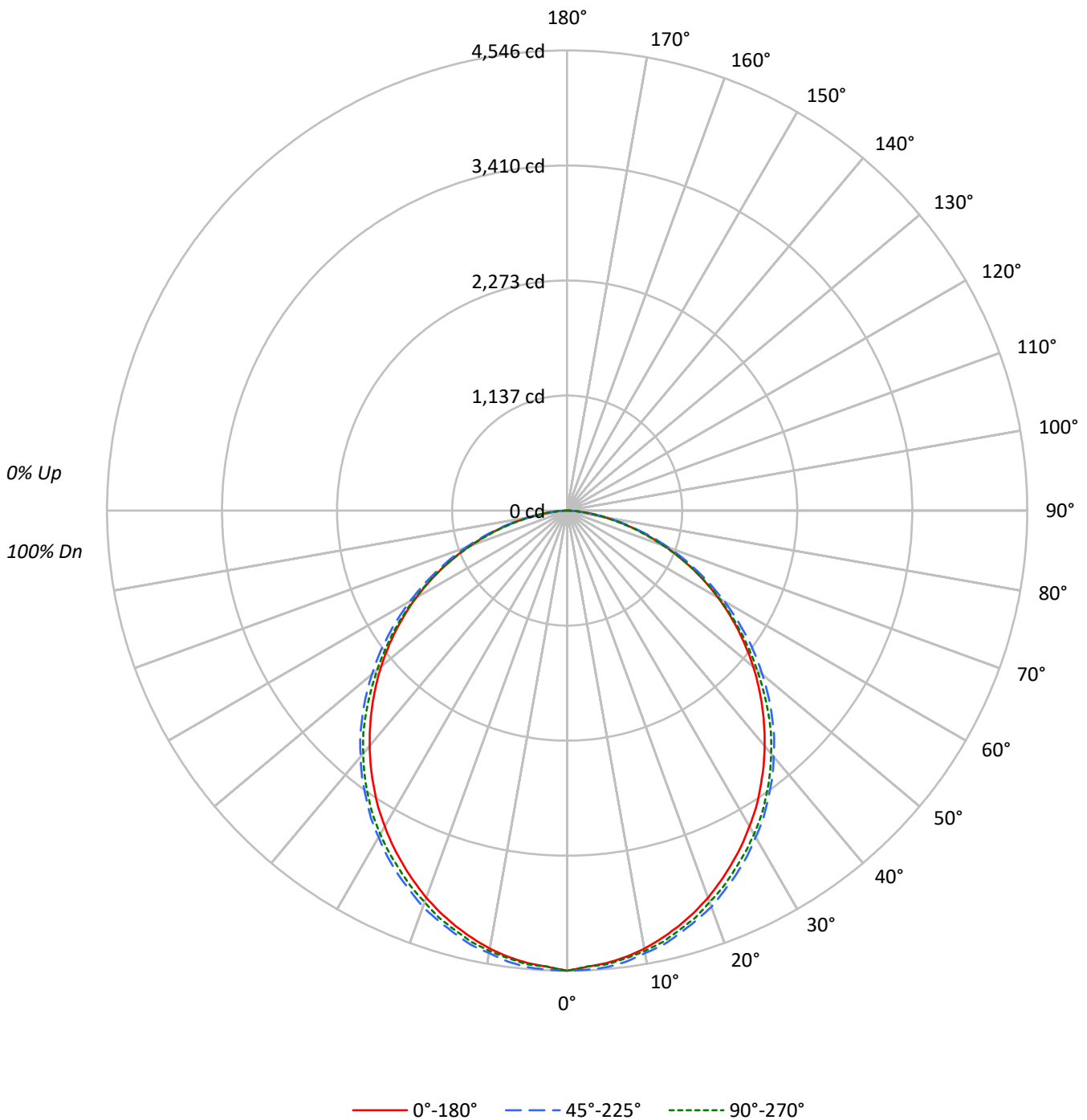
Lumens per Lamp: N/A
Luminaire Lumens: 11950.4 lumens
Efficiency: N/A
Efficacy: 110.7 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 108
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°	12232	12232	12232
5°	12119	12233	12157
10°	12008	12129	12071
15°	11841	12033	11948
20°	11655	11932	11788
25°	11428	11760	11625
30°	11197	11577	11471
35°	10945	11379	11273
40°	10661	11151	11010
45°	10362	10884	10679
50°	10050	10536	10260
55°	9685	10139	9827
60°	9273	9657	9359
65°	8739	9074	8745
70°	8041	8365	7951
75°	7080	7401	6972
80°	5754	6003	5687
85°	4008	4270	4168



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	428.1	3.6
10°-20°	1213.1	10.2
20°-30°	1809.3	15.1
30°-40°	2144.1	17.9
40°-50°	2169.5	18.2
50°-60°	1894.7	15.9
60°-70°	1384.6	11.6
70°-80°	736.7	6.2
80°-90°	170.3	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°	3450.6	28.9
0°-40°	5594.6	46.8
0°-60°	9658.8	80.8
0°-90°	11950.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	11950.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4546	4546	4546	4546	4546	
5°	4486	4495	4528	4539	4500	425
15°	4250	4279	4319	4345	4289	1198
25°	3849	3896	3961	3975	3915	1773
35°	3332	3384	3464	3488	3432	2084
45°	2723	2771	2860	2862	2806	2100
55°	2064	2106	2161	2130	2095	1845
65°	1372	1400	1425	1397	1373	1358
75°	681	697	712	686	671	724
85°	130	132	138	140	135	164
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4545.5	4545.5	4545.5	4545.5	4545.5
2.5°	4510.0	4524.7	4539.8	4546.5	4509.5
5°	4486.3	4494.8	4528.5	4538.9	4500.5
7.5°	4447.5	4460.3	4492.9	4497.7	4460.7
10°	4394.4	4417.2	4438.9	4462.6	4417.6
12.5°	4326.7	4357.5	4394.4	4398.7	4364.6
15°	4250.5	4278.9	4319.1	4345.2	4288.8
17.5°	4165.2	4192.7	4244.8	4249.5	4215.4
20°	4070.0	4104.1	4166.6	4177.5	4116.4
22.5°	3962.0	4008.0	4060.1	4070.5	4025.5
25°	3848.9	3896.2	3960.6	3975.3	3915.2
27.5°	3730.5	3775.9	3848.4	3858.8	3808.1
30°	3603.5	3646.2	3725.7	3743.2	3691.6
32.5°	3474.7	3517.3	3605.4	3620.1	3569.9
35°	3331.7	3383.8	3463.8	3488.0	3431.6
37.5°	3185.8	3236.5	3327.4	3349.2	3288.6
40°	3034.8	3085.0	3174.5	3192.5	3134.2
42.5°	2880.4	2930.6	3026.2	3029.1	2980.8
45°	2722.7	2771.0	2860.0	2862.4	2806.0
47.5°	2562.6	2611.4	2690.9	2681.9	2628.9
50°	2400.6	2447.0	2516.7	2498.7	2450.8
52.5°	2233.0	2278.0	2343.8	2314.4	2269.4
55°	2064.4	2106.1	2161.0	2129.7	2094.7
57.5°	1894.4	1936.5	1978.7	1946.9	1916.6
60°	1722.9	1759.9	1794.4	1762.2	1739.0
62.5°	1548.6	1580.4	1610.2	1579.4	1557.6
65°	1372.5	1400.4	1425.0	1396.6	1373.4
67.5°	1197.2	1220.9	1243.6	1214.3	1190.1
70°	1022.0	1042.4	1063.2	1032.9	1010.6
72.5°	849.1	867.1	885.6	856.2	836.8
75°	681.0	696.6	711.8	685.8	670.6
77.5°	520.5	533.7	544.2	527.6	512.9
80°	371.3	381.2	387.4	380.8	367.0
82.5°	238.7	245.8	249.1	248.6	239.6
85°	129.8	132.1	138.3	139.7	135.0
87.5°	50.2	53.5	54.9	59.2	54.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)