

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: P488716

Luminaire Tested: **CLM-12-4-INS-A19156-LD4-3HI-35-120-EDD-90**

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: P488716
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-LD4-3HI-35-120-EDD-90
Description: 1X4 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

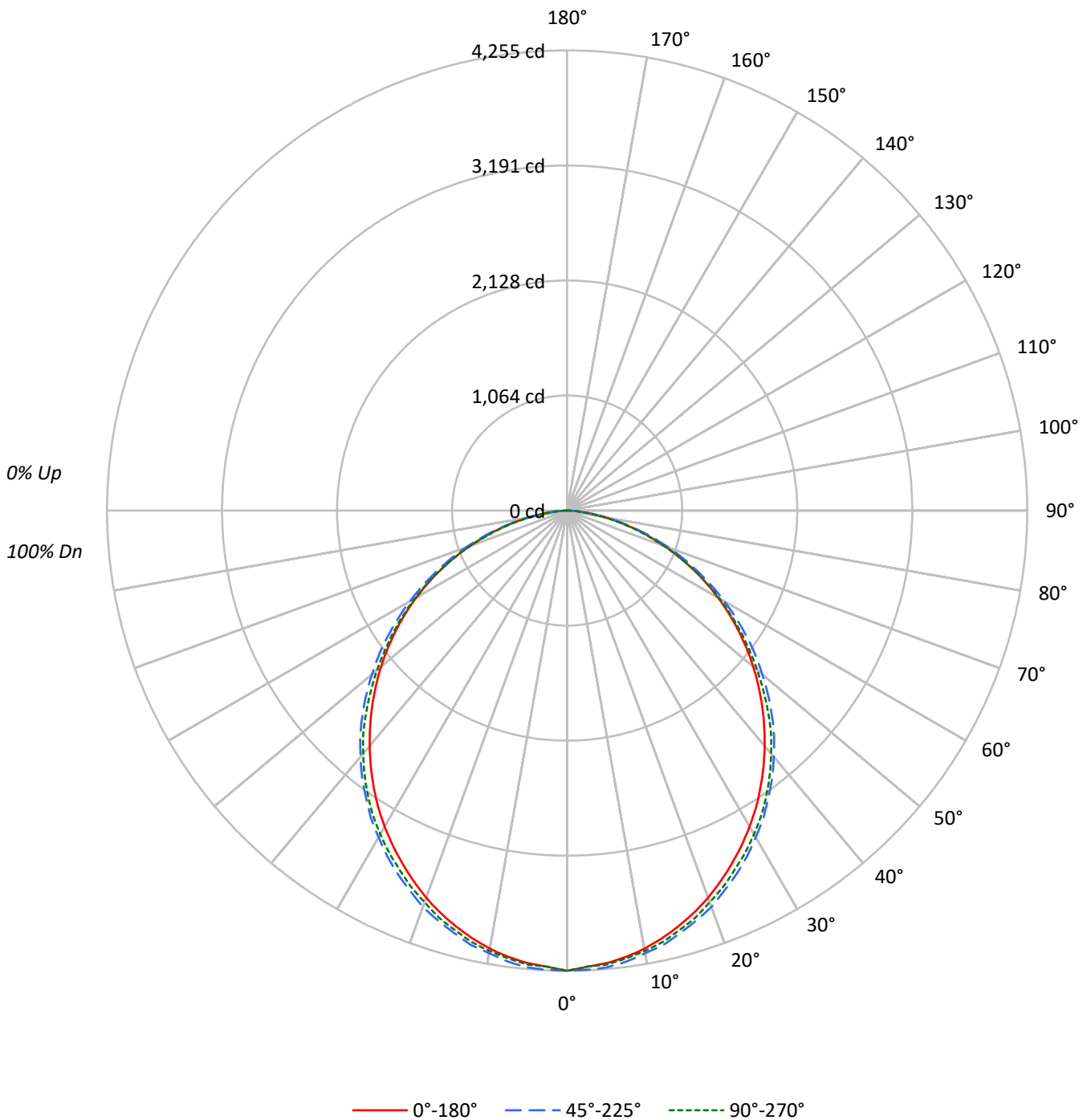
Lumens per Lamp: N/A
Luminaire Lumens: 11187.4 lumens
Efficiency: N/A
Efficacy: 86.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 129.6
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°	11451	11451	11451
5°	11345	11451	11381
10°	11241	11355	11300
15°	11085	11265	11185
20°	10911	11170	11035
25°	10698	11009	10883
30°	10482	10838	10738
35°	10246	10653	10553
40°	9980	10439	10307
45°	9700	10189	9997
50°	9408	9863	9605
55°	9067	9491	9200
60°	8681	9041	8762
65°	8181	8494	8187
70°	7528	7831	7444
75°	6628	6929	6527
80°	5387	5621	5325
85°	3751	3998	3903



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	400.8	3.6
10°-20°	1135.7	10.2
20°-30°	1693.8	15.1
30°-40°	2007.2	17.9
40°-50°	2031.0	18.2
50°-60°	1773.7	15.9
60°-70°	1296.2	11.6
70°-80°	689.7	6.2
80°-90°	159.4	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°	3230.3	28.9
0°-40°	5237.4	46.8
0°-60°	9042.2	80.8
0°-90°	11187.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	11187.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4255	4255	4255	4255	4255	
5°	4200	4208	4239	4249	4213	398
15°	3979	4006	4043	4068	4015	1122
25°	3603	3648	3708	3722	3665	1660
35°	3119	3168	3243	3265	3212	1951
45°	2549	2594	2677	2680	2627	1966
55°	1933	1972	2023	1994	1961	1728
65°	1285	1311	1334	1307	1286	1271
75°	638	652	666	642	628	678
85°	122	124	130	131	126	154
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4255.3	4255.3	4255.3	4255.3	4255.3
2.5°	4222.0	4235.8	4250.0	4256.2	4221.6
5°	4199.9	4207.9	4239.3	4249.1	4213.2
7.5°	4163.5	4175.5	4206.1	4210.5	4175.9
10°	4113.9	4135.1	4155.5	4177.7	4135.6
12.5°	4050.5	4079.3	4113.9	4117.8	4085.9
15°	3979.1	4005.7	4043.4	4067.8	4015.0
17.5°	3899.3	3925.0	3973.8	3978.2	3946.3
20°	3810.2	3842.1	3900.6	3910.8	3853.6
22.5°	3709.1	3752.1	3800.9	3810.6	3768.5
25°	3603.1	3647.5	3707.7	3721.5	3665.2
27.5°	3492.3	3534.8	3602.7	3612.4	3565.0
30°	3373.5	3413.4	3487.8	3504.3	3455.9
32.5°	3252.9	3292.8	3375.2	3389.0	3342.0
35°	3119.0	3167.7	3242.7	3265.3	3212.5
37.5°	2982.4	3029.9	3115.0	3135.4	3078.6
40°	2841.0	2888.0	2971.8	2988.6	2934.1
42.5°	2696.5	2743.5	2833.0	2835.7	2790.5
45°	2548.8	2594.1	2677.4	2679.6	2626.9
47.5°	2399.0	2444.6	2519.1	2510.7	2461.0
50°	2247.3	2290.8	2356.0	2339.1	2294.3
52.5°	2090.4	2132.5	2194.1	2166.7	2124.5
55°	1932.6	1971.6	2023.0	1993.8	1960.9
57.5°	1773.4	1812.9	1852.3	1822.6	1794.2
60°	1612.9	1647.5	1679.9	1649.7	1628.0
62.5°	1449.8	1479.5	1507.4	1478.6	1458.2
65°	1284.8	1311.0	1334.0	1307.4	1285.7
67.5°	1120.8	1143.0	1164.2	1136.8	1114.1
70°	956.8	975.8	995.3	966.9	946.1
72.5°	794.9	811.8	829.1	801.6	783.4
75°	637.5	652.2	666.4	642.0	627.8
77.5°	487.2	499.7	509.4	493.9	480.1
80°	347.6	356.9	362.7	356.5	343.6
82.5°	223.4	230.1	233.2	232.8	224.3
85°	121.5	123.7	129.5	130.8	126.4
87.5°	47.0	50.1	51.4	55.4	51.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)