

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: P488683

Luminaire Tested: **CLM-12-4-INS-A19156-LD4-2HI-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: P488683
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-LD4-2HI-40-120-EDD
Description: 1X4 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

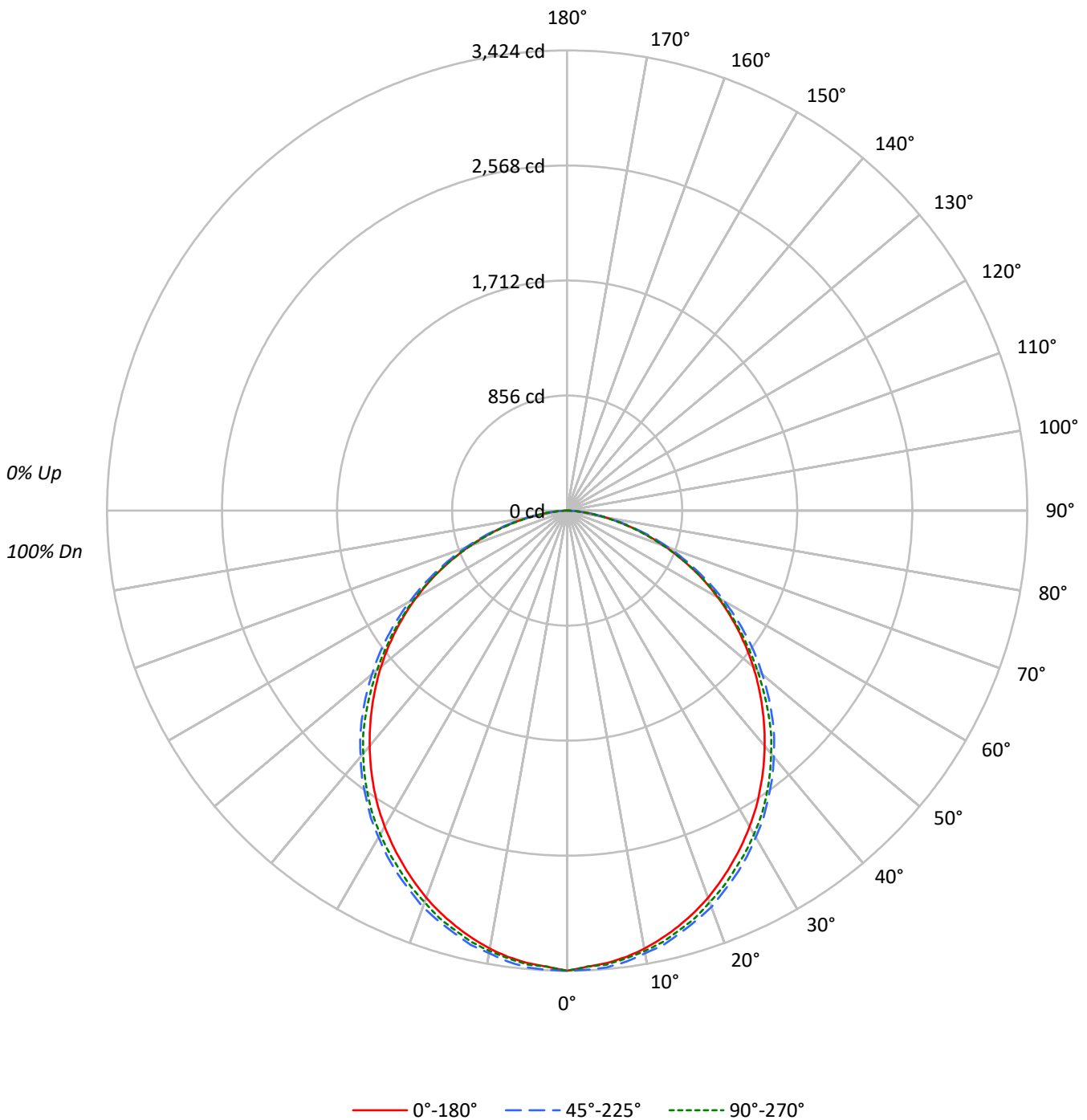
Lumens per Lamp: N/A
Luminaire Lumens: 9002.5 lumens
Efficiency: N/A
Efficacy: 104.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 86.4
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°	9214	9214	9214
5°	9129	9215	9158
10°	9046	9137	9093
15°	8920	9065	9001
20°	8780	8989	8880
25°	8609	8859	8757
30°	8435	8721	8641
35°	8245	8572	8492
40°	8031	8401	8294
45°	7805	8199	8044
50°	7571	7937	7729
55°	7296	7637	7403
60°	6985	7275	7050
65°	6583	6835	6588
70°	6057	6301	5990
75°	5334	5575	5253
80°	4334	4522	4285
85°	3020	3217	3140



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	322.5	3.6
10°-20°	913.9	10.2
20°-30°	1363.0	15.1
30°-40°	1615.2	17.9
40°-50°	1634.3	18.2
50°-60°	1427.3	15.9
60°-70°	1043.0	11.6
70°-80°	555.0	6.2
80°-90°	128.3	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°	2599.4	28.9
0°-40°	4214.6	46.8
0°-60°	7276.2	80.8
0°-90°	9002.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9002.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3424	3424	3424	3424	3424	
5°	3380	3386	3411	3419	3390	320
15°	3202	3223	3254	3273	3231	903
25°	2899	2935	2984	2995	2949	1336
35°	2510	2549	2609	2628	2585	1570
45°	2051	2087	2154	2156	2114	1582
55°	1555	1586	1628	1604	1578	1390
65°	1034	1055	1074	1052	1035	1023
75°	513	525	536	517	505	545
85°	98	100	104	105	102	124
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3424.2	3424.2	3424.2	3424.2	3424.2
2.5°	3397.5	3408.5	3419.9	3424.9	3397.1
5°	3379.6	3386.1	3411.4	3419.2	3390.3
7.5°	3350.4	3360.0	3384.6	3388.2	3360.4
10°	3310.4	3327.5	3344.0	3361.8	3327.9
12.5°	3259.4	3282.6	3310.4	3313.6	3287.9
15°	3202.0	3223.4	3253.7	3273.3	3230.9
17.5°	3137.7	3158.4	3197.7	3201.3	3175.6
20°	3066.0	3091.7	3138.8	3147.0	3101.0
22.5°	2984.7	3019.3	3058.5	3066.4	3032.5
25°	2899.4	2935.1	2983.6	2994.7	2949.4
27.5°	2810.2	2844.5	2899.1	2906.9	2868.7
30°	2714.6	2746.7	2806.7	2819.9	2781.0
32.5°	2617.6	2649.7	2716.1	2727.1	2689.3
35°	2509.8	2549.1	2609.4	2627.6	2585.1
37.5°	2400.0	2438.1	2506.6	2523.0	2477.4
40°	2286.2	2324.0	2391.4	2405.0	2361.1
42.5°	2169.8	2207.7	2279.7	2281.9	2245.5
45°	2051.0	2087.4	2154.5	2156.3	2113.8
47.5°	1930.5	1967.2	2027.1	2020.4	1980.4
50°	1808.4	1843.4	1895.8	1882.3	1846.3
52.5°	1682.1	1716.0	1765.6	1743.5	1709.6
55°	1555.1	1586.5	1627.9	1604.4	1578.0
57.5°	1427.1	1458.8	1490.6	1466.7	1443.8
60°	1297.9	1325.7	1351.8	1327.5	1310.0
62.5°	1166.6	1190.5	1213.0	1189.8	1173.4
65°	1033.9	1055.0	1073.5	1052.1	1034.6
67.5°	901.9	919.7	936.9	914.7	896.6
70°	769.9	785.2	800.9	778.1	761.3
72.5°	639.7	653.2	667.2	645.0	630.4
75°	513.0	524.8	536.2	516.6	505.2
77.5°	392.1	402.1	409.9	397.4	386.4
80°	279.7	287.2	291.8	286.8	276.5
82.5°	179.8	185.2	187.7	187.3	180.5
85°	97.8	99.5	104.2	105.2	101.7
87.5°	37.8	40.3	41.4	44.6	41.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)