

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: P488737

Luminaire Tested: **CLM-12-4-INS-A19156-LD4-3STD-27-120-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: P488737
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-LD4-3STD-27-120-EDD
Description: 1X4 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

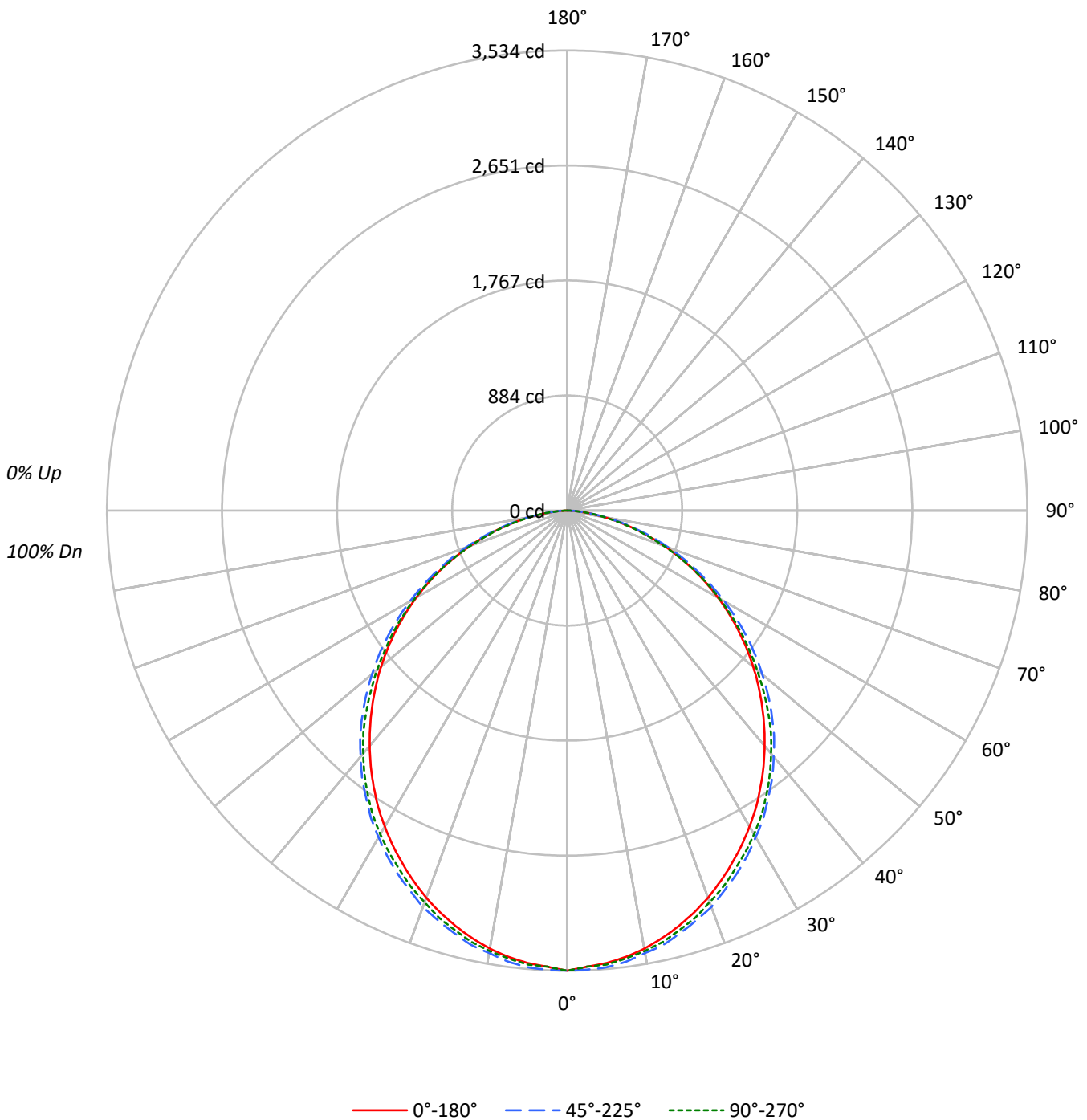
Lumens per Lamp: N/A
Luminaire Lumens: 9291.0 lumens
Efficiency: N/A
Efficacy: 93.0 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 99.9
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°	9510	9510	9510
5°	9422	9510	9452
10°	9336	9430	9385
15°	9206	9355	9289
20°	9062	9277	9165
25°	8885	9143	9038
30°	8705	9001	8918
35°	8509	8847	8765
40°	8288	8670	8560
45°	8056	8462	8302
50°	7814	8191	7977
55°	7530	7882	7640
60°	7209	7508	7276
65°	6794	7054	6799
70°	6252	6504	6182
75°	5505	5754	5421
80°	4474	4668	4423
85°	3115	3319	3239



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	332.8	3.6
10°-20°	943.2	10.2
20°-30°	1406.7	15.1
30°-40°	1666.9	17.9
40°-50°	1686.7	18.2
50°-60°	1473.1	15.9
60°-70°	1076.5	11.6
70°-80°	572.8	6.2
80°-90°	132.4	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°	2682.7	28.9
0°-40°	4349.6	46.8
0°-60°	7509.4	80.8
0°-90°	9291.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9291.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3534	3534	3534	3534	3534	
5°	3488	3495	3521	3529	3499	331
15°	3305	3327	3358	3378	3334	932
25°	2992	3029	3079	3091	3044	1379
35°	2590	2631	2693	2712	2668	1620
45°	2117	2154	2224	2225	2182	1633
55°	1605	1637	1680	1656	1628	1435
65°	1067	1089	1108	1086	1068	1056
75°	530	542	553	533	521	563
85°	101	103	108	109	105	128
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3534.0	3534.0	3534.0	3534.0	3534.0
2.5°	3506.4	3517.8	3529.5	3534.7	3506.0
5°	3487.9	3494.6	3520.7	3528.8	3499.0
7.5°	3457.7	3467.7	3493.1	3496.8	3468.1
10°	3416.5	3434.2	3451.1	3469.5	3434.6
12.5°	3363.9	3387.8	3416.5	3419.8	3393.3
15°	3304.6	3326.7	3358.0	3378.2	3334.4
17.5°	3238.3	3259.7	3300.2	3303.8	3277.3
20°	3164.3	3190.8	3239.4	3247.9	3200.4
22.5°	3080.3	3116.1	3156.6	3164.7	3129.7
25°	2992.3	3029.2	3079.2	3090.7	3043.9
27.5°	2900.3	2935.6	2992.0	3000.1	2960.7
30°	2801.6	2834.8	2896.6	2910.2	2870.1
32.5°	2701.5	2734.6	2803.1	2814.5	2775.5
35°	2590.3	2630.8	2693.0	2711.8	2668.0
37.5°	2476.9	2516.3	2587.0	2603.9	2556.8
40°	2359.4	2398.4	2468.0	2482.0	2436.7
42.5°	2239.4	2278.4	2352.8	2355.0	2317.4
45°	2116.8	2154.3	2223.5	2225.4	2181.6
47.5°	1992.3	2030.2	2092.1	2085.1	2043.9
50°	1866.4	1902.5	1956.6	1942.6	1905.4
52.5°	1736.1	1771.0	1822.2	1799.4	1764.4
55°	1605.0	1637.4	1680.1	1655.8	1628.5
57.5°	1472.8	1505.6	1538.3	1513.7	1490.1
60°	1339.5	1368.2	1395.1	1370.1	1352.0
62.5°	1204.0	1228.7	1251.9	1227.9	1211.0
65°	1067.0	1088.8	1107.9	1085.8	1067.8
67.5°	930.8	949.2	966.9	944.1	925.3
70°	794.6	810.4	826.6	803.0	785.7
72.5°	660.2	674.2	688.5	665.7	650.6
75°	529.5	541.6	553.4	533.2	521.4
77.5°	404.6	415.0	423.1	410.2	398.8
80°	288.7	296.4	301.2	296.0	285.4
82.5°	185.6	191.1	193.7	193.3	186.3
85°	100.9	102.7	107.5	108.6	104.9
87.5°	39.0	41.6	42.7	46.0	42.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)