

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: P488665

Luminaire Tested: **CLM-12-4-INS-A19156-LD4-1STD-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: P488665
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-LD4-1STD-27-120-EDD
Description: 1X4 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

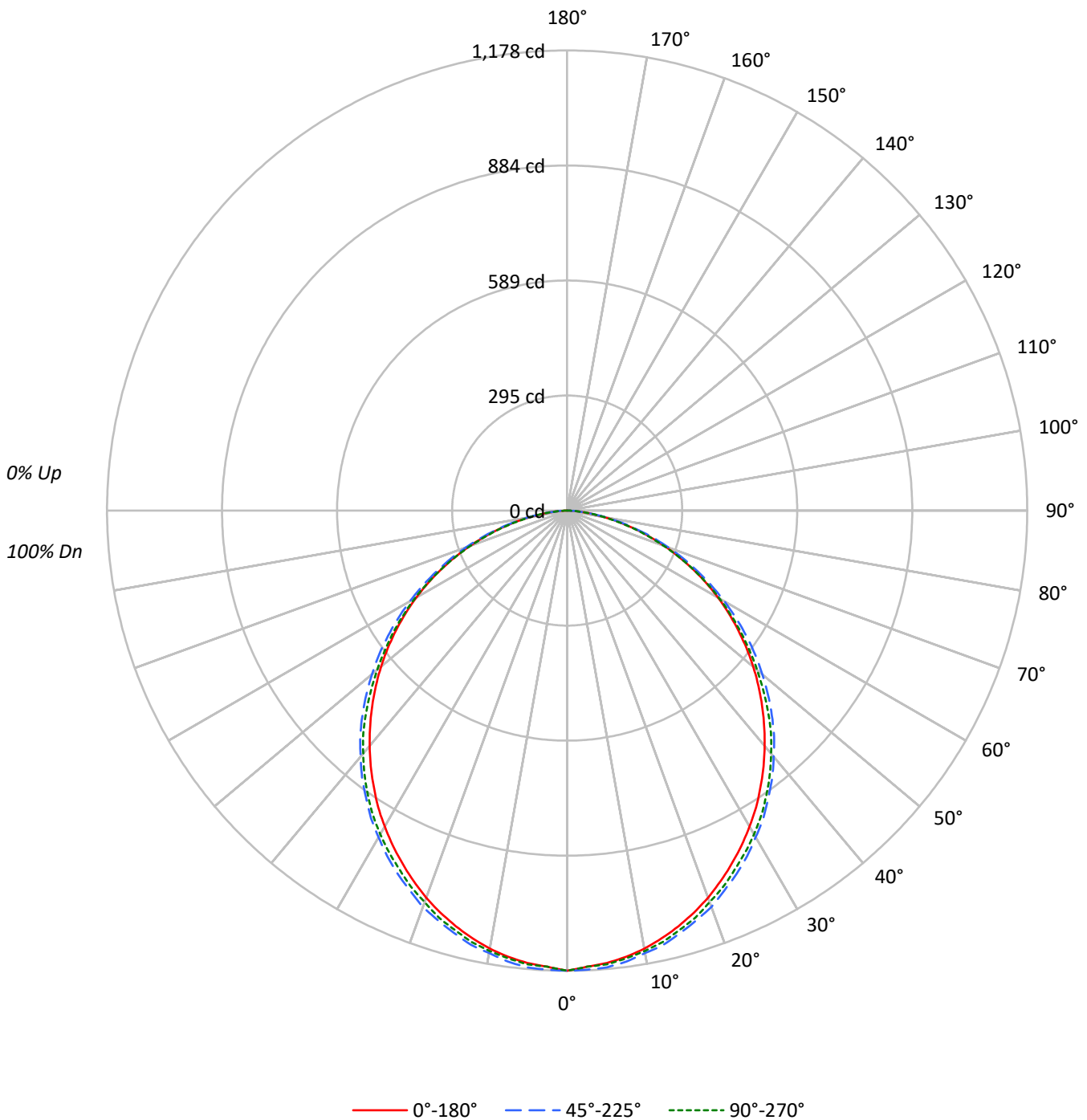
Lumens per Lamp: N/A
Luminaire Lumens: 3097.0 lumens
Efficiency: N/A
Efficacy: 93.0 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 33.3
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°	3170	3170	3170
5°	3140	3170	3150
10°	3112	3143	3128
15°	3069	3118	3097
20°	3021	3092	3055
25°	2961	3048	3013
30°	2902	3000	2973
35°	2836	2949	2921
40°	2763	2890	2853
45°	2685	2821	2767
50°	2604	2730	2659
55°	2510	2627	2547
60°	2403	2503	2426
65°	2265	2351	2266
70°	2084	2168	2061
75°	1835	1918	1807
80°	1491	1556	1474
85°	1037	1105	1081



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	110.9	3.6
10°-20°	314.4	10.2
20°-30°	468.9	15.1
30°-40°	555.6	17.9
40°-50°	562.2	18.2
50°-60°	491.0	15.9
60°-70°	358.8	11.6
70°-80°	190.9	6.2
80°-90°	44.1	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°	894.2	28.9
0°-40°	1449.9	46.8
0°-60°	2503.1	80.8
0°-90°	3097.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3097.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1178	1178	1178	1178	1178	
5°	1163	1165	1174	1176	1166	110
15°	1102	1109	1119	1126	1112	311
25°	997	1010	1026	1030	1015	460
35°	863	877	898	904	889	540
45°	706	718	741	742	727	544
55°	535	546	560	552	543	478
65°	356	363	369	362	356	352
75°	176	180	184	178	174	188
85°	34	34	36	36	35	43
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1178.0	1178.0	1178.0	1178.0	1178.0
2.5°	1168.8	1172.6	1176.5	1178.2	1168.7
5°	1162.6	1164.9	1173.6	1176.3	1166.3
7.5°	1152.6	1155.9	1164.4	1165.6	1156.0
10°	1138.8	1144.7	1150.4	1156.5	1144.9
12.5°	1121.3	1129.3	1138.8	1139.9	1131.1
15°	1101.5	1108.9	1119.3	1126.1	1111.5
17.5°	1079.4	1086.6	1100.1	1101.3	1092.4
20°	1054.8	1063.6	1079.8	1082.6	1066.8
22.5°	1026.8	1038.7	1052.2	1054.9	1043.2
25°	997.4	1009.7	1026.4	1030.2	1014.6
27.5°	966.8	978.5	997.3	1000.0	986.9
30°	933.9	944.9	965.5	970.1	956.7
32.5°	900.5	911.5	934.4	938.2	925.2
35°	863.4	876.9	897.7	903.9	889.3
37.5°	825.6	838.8	862.3	868.0	852.3
40°	786.5	799.5	822.7	827.3	812.2
42.5°	746.5	759.5	784.3	785.0	772.5
45°	705.6	718.1	741.2	741.8	727.2
47.5°	664.1	676.7	697.4	695.0	681.3
50°	622.1	634.2	652.2	647.5	635.1
52.5°	578.7	590.3	607.4	599.8	588.1
55°	535.0	545.8	560.0	551.9	542.8
57.5°	490.9	501.9	512.8	504.6	496.7
60°	446.5	456.1	465.0	456.7	450.7
62.5°	401.3	409.6	417.3	409.3	403.7
65°	355.7	362.9	369.3	361.9	355.9
67.5°	310.3	316.4	322.3	314.7	308.4
70°	264.9	270.1	275.5	267.7	261.9
72.5°	220.1	224.7	229.5	221.9	216.9
75°	176.5	180.5	184.5	177.7	173.8
77.5°	134.9	138.3	141.0	136.7	132.9
80°	96.2	98.8	100.4	98.7	95.1
82.5°	61.9	63.7	64.6	64.4	62.1
85°	33.6	34.2	35.8	36.2	35.0
87.5°	13.0	13.9	14.2	15.3	14.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)