

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: P488640

Luminaire Tested: **CLM-12-4-INS-A19156-LD4-1HI-27-120-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: P488640
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-LD4-1HI-27-120-EDD-90
Description: 1X4 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

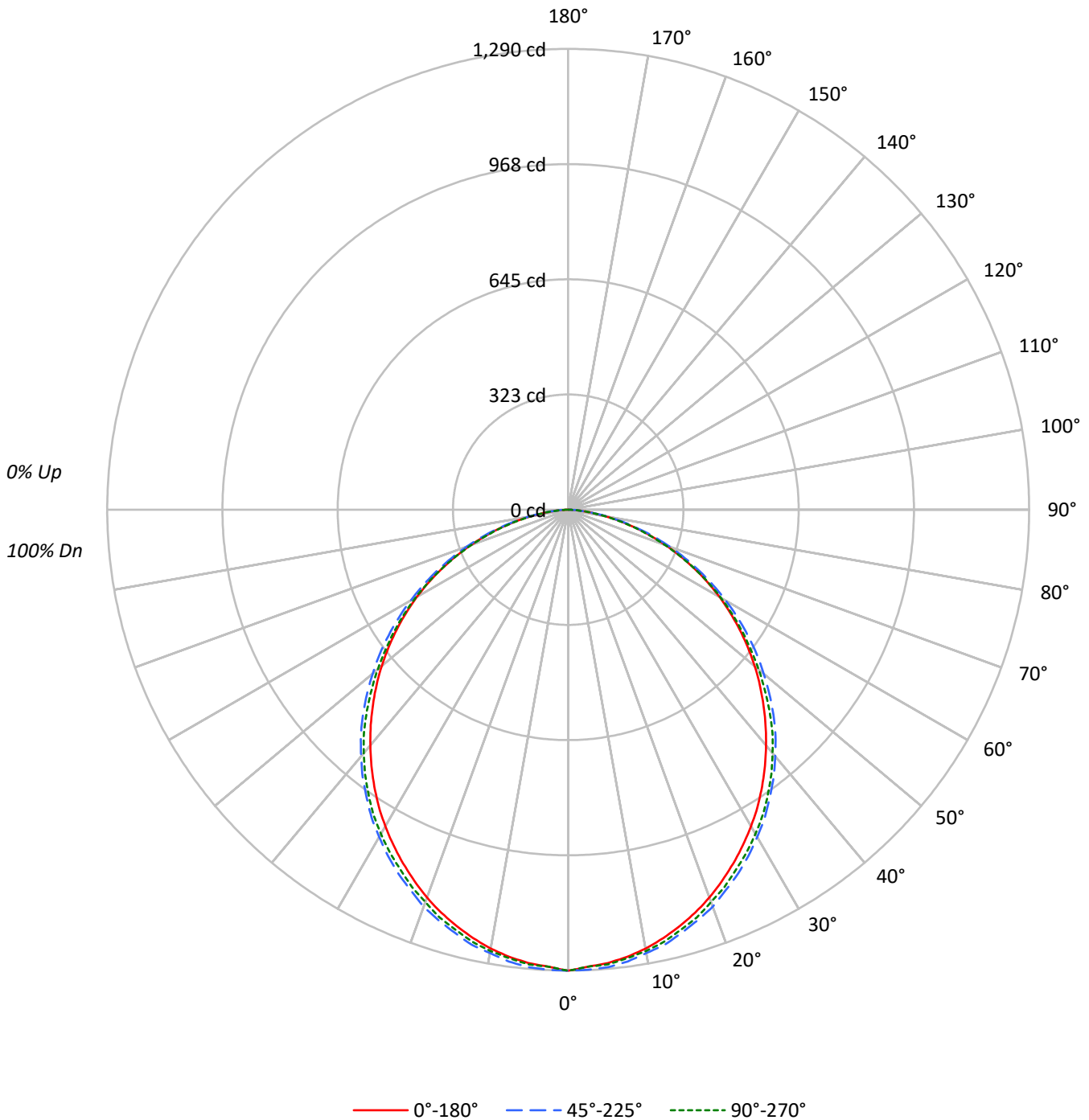
Lumens per Lamp: N/A
Luminaire Lumens: 3392.5 lumens
Efficiency: N/A
Efficacy: 78.5 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 43.2
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°	3472	3472	3472
5°	3440	3472	3451
10°	3409	3443	3427
15°	3361	3416	3392
20°	3309	3387	3346
25°	3244	3338	3300
30°	3179	3287	3256
35°	3107	3230	3200
40°	3026	3166	3125
45°	2941	3090	3032
50°	2853	2991	2912
55°	2749	2878	2790
60°	2632	2742	2657
65°	2481	2576	2483
70°	2282	2375	2257
75°	2010	2101	1980
80°	1633	1705	1615
85°	1136	1213	1183



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	121.5	3.6
10°-20°	344.4	10.2
20°-30°	513.6	15.1
30°-40°	608.7	17.9
40°-50°	615.9	18.2
50°-60°	537.9	15.9
60°-70°	393.0	11.6
70°-80°	209.2	6.2
80°-90°	48.3	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°	979.5	28.9
0°-40°	1588.2	46.8
0°-60°	2742.0	80.8
0°-90°	3392.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3392.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1290	1290	1290	1290	1290	
5°	1274	1276	1286	1288	1278	121
15°	1207	1215	1226	1234	1218	340
25°	1093	1106	1124	1128	1111	503
35°	946	961	983	990	974	591
45°	773	787	812	813	797	596
55°	586	598	614	605	595	524
65°	390	398	404	396	390	386
75°	193	198	202	195	190	206
85°	37	38	39	40	38	47
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1290.4	1290.4	1290.4	1290.4	1290.4
2.5°	1280.3	1284.5	1288.8	1290.7	1280.2
5°	1273.6	1276.0	1285.5	1288.5	1277.6
7.5°	1262.6	1266.2	1275.5	1276.8	1266.3
10°	1247.5	1254.0	1260.1	1266.9	1254.1
12.5°	1228.3	1237.0	1247.5	1248.7	1239.0
15°	1206.6	1214.7	1226.1	1233.5	1217.5
17.5°	1182.4	1190.2	1205.0	1206.4	1196.7
20°	1155.4	1165.1	1182.8	1185.9	1168.6
22.5°	1124.8	1137.8	1152.6	1155.5	1142.8
25°	1092.6	1106.1	1124.3	1128.5	1111.4
27.5°	1059.0	1071.9	1092.5	1095.4	1081.1
30°	1023.0	1035.1	1057.7	1062.6	1048.0
32.5°	986.4	998.5	1023.5	1027.7	1013.4
35°	945.8	960.6	983.3	990.2	974.2
37.5°	904.4	918.8	944.6	950.8	933.6
40°	861.5	875.8	901.2	906.3	889.7
42.5°	817.7	831.9	859.1	859.9	846.2
45°	772.9	786.6	811.9	812.6	796.6
47.5°	727.5	741.3	763.9	761.4	746.3
50°	681.5	694.7	714.4	709.3	695.7
52.5°	633.9	646.7	665.4	657.0	644.3
55°	586.0	597.9	613.5	604.6	594.6
57.5°	537.8	549.7	561.7	552.7	544.1
60°	489.1	499.6	509.4	500.3	493.7
62.5°	439.6	448.6	457.1	448.4	442.2
65°	389.6	397.5	404.5	396.5	389.9
67.5°	339.9	346.6	353.0	344.7	337.9
70°	290.1	295.9	301.8	293.2	286.9
72.5°	241.1	246.2	251.4	243.1	237.6
75°	193.3	197.8	202.1	194.7	190.4
77.5°	147.8	151.5	154.5	149.8	145.6
80°	105.4	108.2	110.0	108.1	104.2
82.5°	67.8	69.8	70.7	70.6	68.0
85°	36.8	37.5	39.3	39.7	38.3
87.5°	14.3	15.2	15.6	16.8	15.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)