

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: P488698

Luminaire Tested: **CLM-12-4-INS-A19156-LD4-2STD-20-120-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: P488698
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-LD4-2STD-20-120-EDD-90
Description: 1X4 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

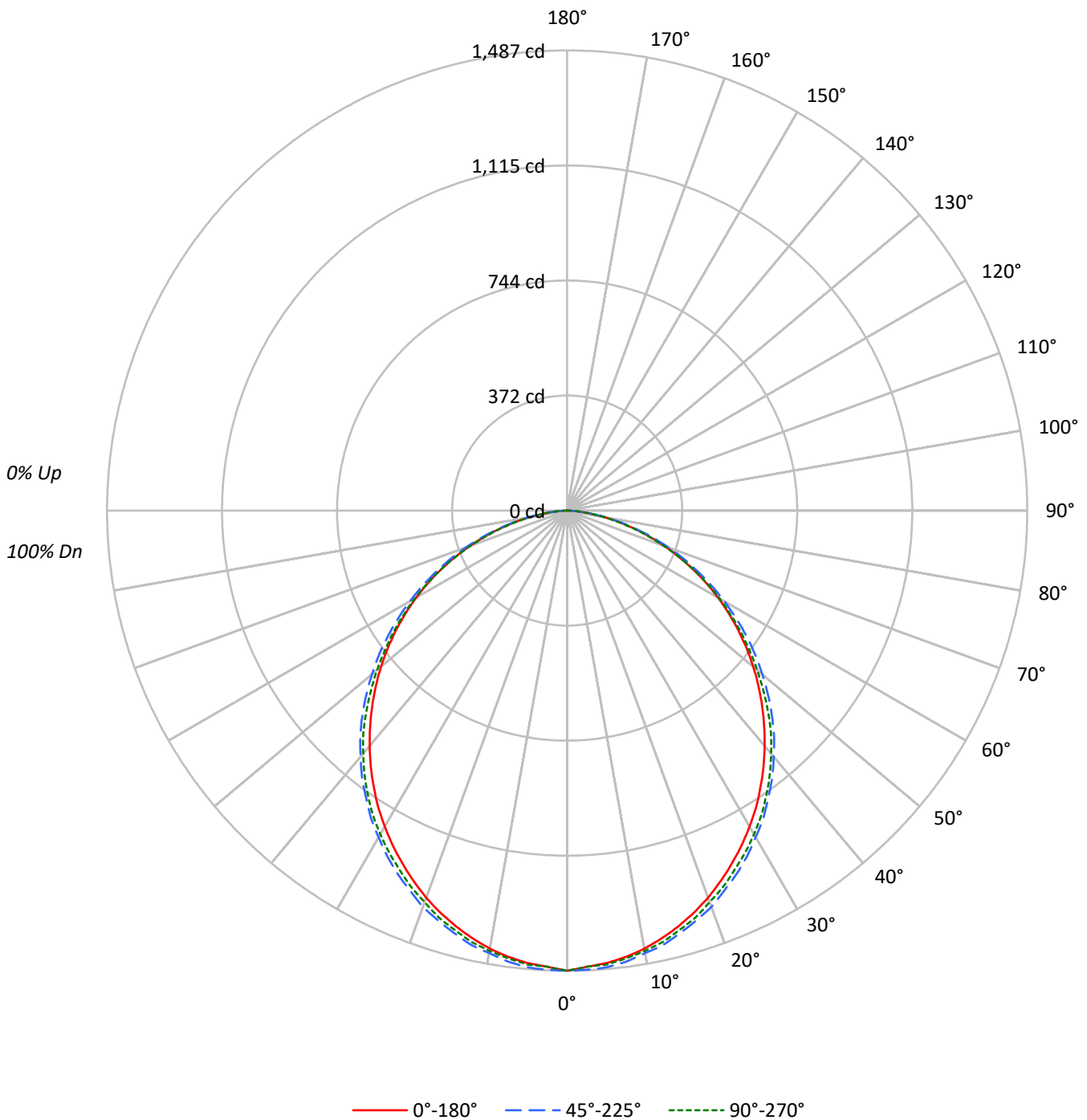
Lumens per Lamp: N/A
Luminaire Lumens: 3909.4 lumens
Efficiency: N/A
Efficacy: 58.7 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 66.6
Input Voltage (V): NR
Input Current (A_{in}): 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°	4001	4001	4001
5°	3964	4002	3977
10°	3928	3968	3949
15°	3874	3936	3909
20°	3813	3903	3856
25°	3738	3847	3803
30°	3663	3787	3753
35°	3580	3722	3688
40°	3488	3648	3602
45°	3390	3561	3493
50°	3288	3447	3357
55°	3168	3316	3215
60°	3033	3159	3062
65°	2859	2968	2861
70°	2630	2736	2601
75°	2316	2421	2281
80°	1883	1963	1861
85°	1312	1396	1365



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	140.0	3.6
10°-20°	396.9	10.2
20°-30°	591.9	15.1
30°-40°	701.4	17.9
40°-50°	709.7	18.2
50°-60°	619.8	15.9
60°-70°	452.9	11.6
70°-80°	241.0	6.2
80°-90°	55.7	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°	1128.8	28.9
0°-40°	1830.2	46.8
0°-60°	3159.7	80.8
0°-90°	3909.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3909.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1487	1487	1487	1487	1487	
5°	1468	1470	1481	1485	1472	139
15°	1390	1400	1413	1422	1403	392
25°	1259	1275	1296	1300	1281	580
35°	1090	1107	1133	1141	1123	682
45°	891	906	936	936	918	687
55°	675	689	707	697	685	604
65°	449	458	466	457	449	444
75°	223	228	233	224	219	237
85°	42	43	45	46	44	54
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1487.0	1487.0	1487.0	1487.0	1487.0
2.5°	1475.4	1480.2	1485.1	1487.3	1475.2
5°	1467.6	1470.4	1481.4	1484.8	1472.3
7.5°	1454.9	1459.1	1469.8	1471.3	1459.3
10°	1437.6	1445.0	1452.1	1459.9	1445.2
12.5°	1415.4	1425.5	1437.6	1439.0	1427.8
15°	1390.5	1399.8	1412.9	1421.5	1403.0
17.5°	1362.6	1371.6	1388.6	1390.2	1379.0
20°	1331.4	1342.6	1363.1	1366.6	1346.6
22.5°	1296.1	1311.2	1328.2	1331.6	1316.9
25°	1259.1	1274.6	1295.7	1300.5	1280.8
27.5°	1220.4	1235.2	1258.9	1262.4	1245.8
30°	1178.8	1192.8	1218.8	1224.5	1207.7
32.5°	1136.7	1150.6	1179.5	1184.3	1167.8
35°	1089.9	1107.0	1133.1	1141.0	1122.6
37.5°	1042.2	1058.8	1088.5	1095.6	1075.8
40°	992.8	1009.2	1038.5	1044.4	1025.3
42.5°	942.3	958.7	990.0	990.9	975.1
45°	890.7	906.5	935.6	936.4	917.9
47.5°	838.3	854.3	880.3	877.4	860.0
50°	785.3	800.5	823.3	817.4	801.8
52.5°	730.5	745.2	766.7	757.1	742.4
55°	675.3	689.0	706.9	696.7	685.2
57.5°	619.7	633.5	647.3	636.9	627.0
60°	563.6	575.7	587.0	576.5	568.9
62.5°	506.6	517.0	526.8	516.7	509.6
65°	449.0	458.1	466.2	456.9	449.3
67.5°	391.7	399.4	406.8	397.2	389.3
70°	334.3	341.0	347.8	337.9	330.6
72.5°	277.8	283.7	289.7	280.1	273.8
75°	222.8	227.9	232.9	224.3	219.4
77.5°	170.3	174.6	178.0	172.6	167.8
80°	121.5	124.7	126.7	124.6	120.1
82.5°	78.1	80.4	81.5	81.3	78.4
85°	42.5	43.2	45.2	45.7	44.2
87.5°	16.4	17.5	18.0	19.4	17.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)