

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: P488692

Luminaire Tested: **CLM-12-4-INS-A19156-LD4-2LO-35-120-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: P488692  
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-LD4-2LO-35-120-EDD-90  
Description: 1X4 CLM LED LUMINAIRE WITH A19156 LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

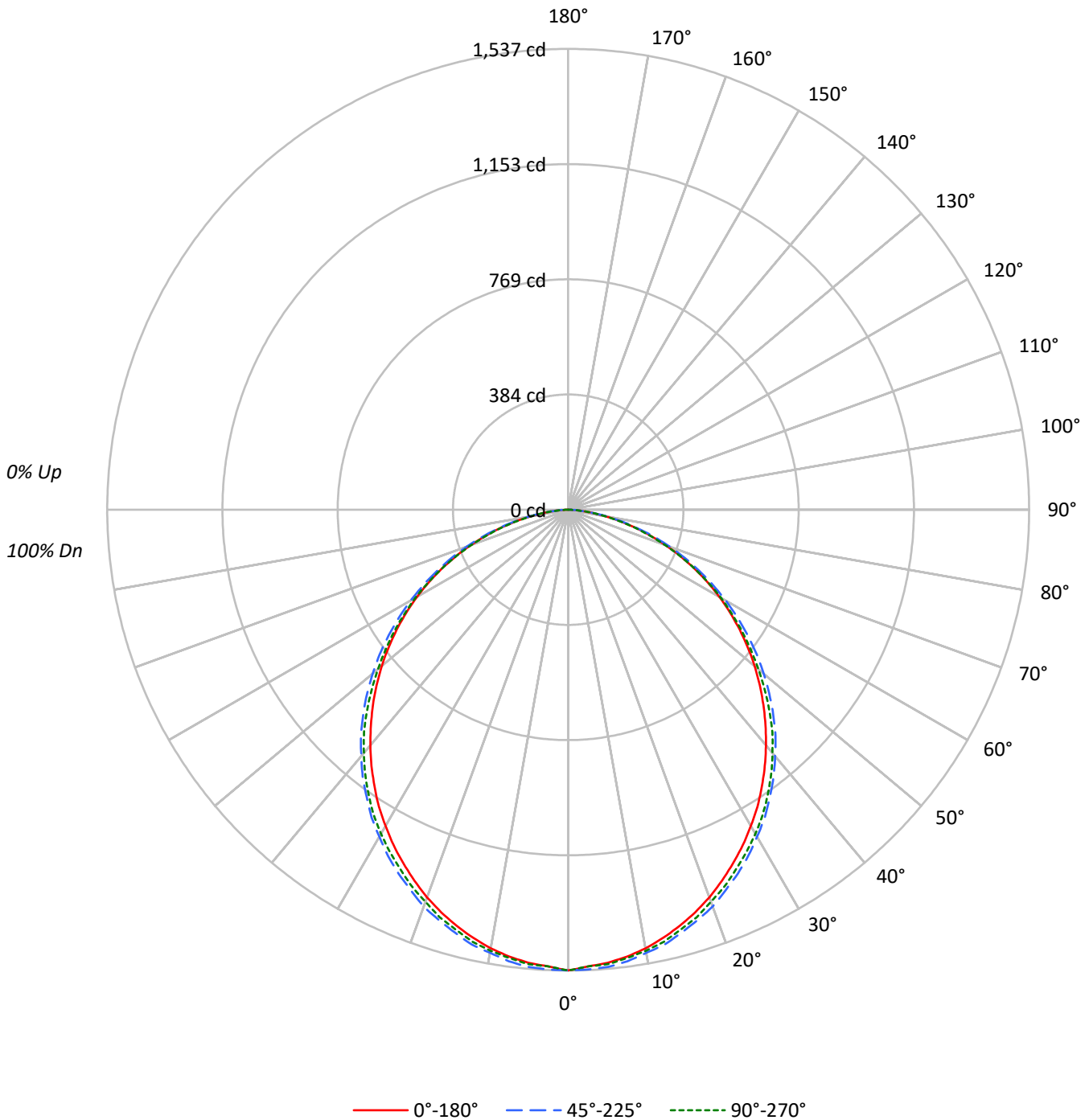
Lumens per Lamp: N/A  
Luminaire Lumens: 4039.9 lumens  
Efficiency: N/A  
Efficacy: 86.3 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 46.8  
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°	4135	4135	4135
5°	4097	4135	4110
10°	4059	4100	4081
15°	4003	4068	4039
20°	3940	4034	3985
25°	3863	3975	3930
30°	3785	3914	3878
35°	3700	3847	3811
40°	3604	3770	3722
45°	3503	3679	3610
50°	3397	3562	3468
55°	3274	3427	3322
60°	3134	3265	3164
65°	2954	3067	2956
70°	2718	2828	2688
75°	2393	2502	2357
80°	1945	2030	1923
85°	1355	1442	1408



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	144.7	3.6
10°-20°	410.1	10.2
20°-30°	611.7	15.1
30°-40°	724.8	17.9
40°-50°	733.4	18.2
50°-60°	640.5	15.9
60°-70°	468.1	11.6
70°-80°	249.1	6.2
80°-90°	57.6	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°	1166.5	28.9
0°-40°	1891.3	46.8
0°-60°	3265.2	80.8
0°-90°	4039.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4039.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1537	1537	1537	1537	1537	
5°	1517	1520	1531	1534	1521	144
15°	1437	1446	1460	1469	1450	405
25°	1301	1317	1339	1344	1324	599
35°	1126	1144	1171	1179	1160	704
45°	920	937	967	968	949	710
55°	698	712	730	720	708	624
65°	464	473	482	472	464	459
75°	230	236	241	232	227	245
85°	44	45	47	47	46	56
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1536.6	1536.6	1536.6	1536.6	1536.6
2.5°	1524.6	1529.6	1534.7	1537.0	1524.5
5°	1516.6	1519.5	1530.9	1534.4	1521.4
7.5°	1503.5	1507.8	1518.9	1520.5	1508.0
10°	1485.6	1493.2	1500.6	1508.6	1493.4
12.5°	1462.7	1473.1	1485.6	1487.0	1475.5
15°	1436.9	1446.5	1460.1	1468.9	1449.9
17.5°	1408.1	1417.4	1435.0	1436.6	1425.0
20°	1375.9	1387.4	1408.6	1412.2	1391.6
22.5°	1339.4	1354.9	1372.5	1376.1	1360.8
25°	1301.1	1317.1	1338.9	1343.9	1323.5
27.5°	1261.1	1276.5	1301.0	1304.5	1287.4
30°	1218.2	1232.6	1259.5	1265.4	1248.0
32.5°	1174.6	1189.1	1218.8	1223.8	1206.8
35°	1126.3	1143.9	1171.0	1179.1	1160.1
37.5°	1077.0	1094.1	1124.9	1132.2	1111.7
40°	1025.9	1042.9	1073.1	1079.2	1059.5
42.5°	973.7	990.7	1023.0	1024.0	1007.7
45°	920.4	936.7	966.8	967.6	948.6
47.5°	866.3	882.8	909.7	906.6	888.7
50°	811.5	827.2	850.8	844.7	828.5
52.5°	754.9	770.1	792.3	782.4	767.2
55°	697.9	712.0	730.5	720.0	708.1
57.5°	640.4	654.6	668.9	658.2	647.9
60°	582.4	594.9	606.6	595.7	587.9
62.5°	523.5	534.3	544.3	533.9	526.6
65°	464.0	473.4	481.7	472.1	464.3
67.5°	404.7	412.7	420.4	410.5	402.3
70°	345.5	352.4	359.4	349.2	341.7
72.5°	287.1	293.1	299.4	289.5	282.9
75°	230.2	235.5	240.6	231.8	226.7
77.5°	175.9	180.4	184.0	178.4	173.4
80°	125.5	128.9	131.0	128.7	124.1
82.5°	80.7	83.1	84.2	84.1	81.0
85°	43.9	44.7	46.7	47.2	45.6
87.5°	17.0	18.1	18.6	20.0	18.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)