

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: P488457

Luminaire Tested: **CLM-12-2-INS-A19156-LD4-2STD-50-120-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: P488457  
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-12-2-INS-A19156-LD4-2STD-50-120-EDD  
Description: 1X2 CLM LED LUMINAIRE WITH A19156 LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

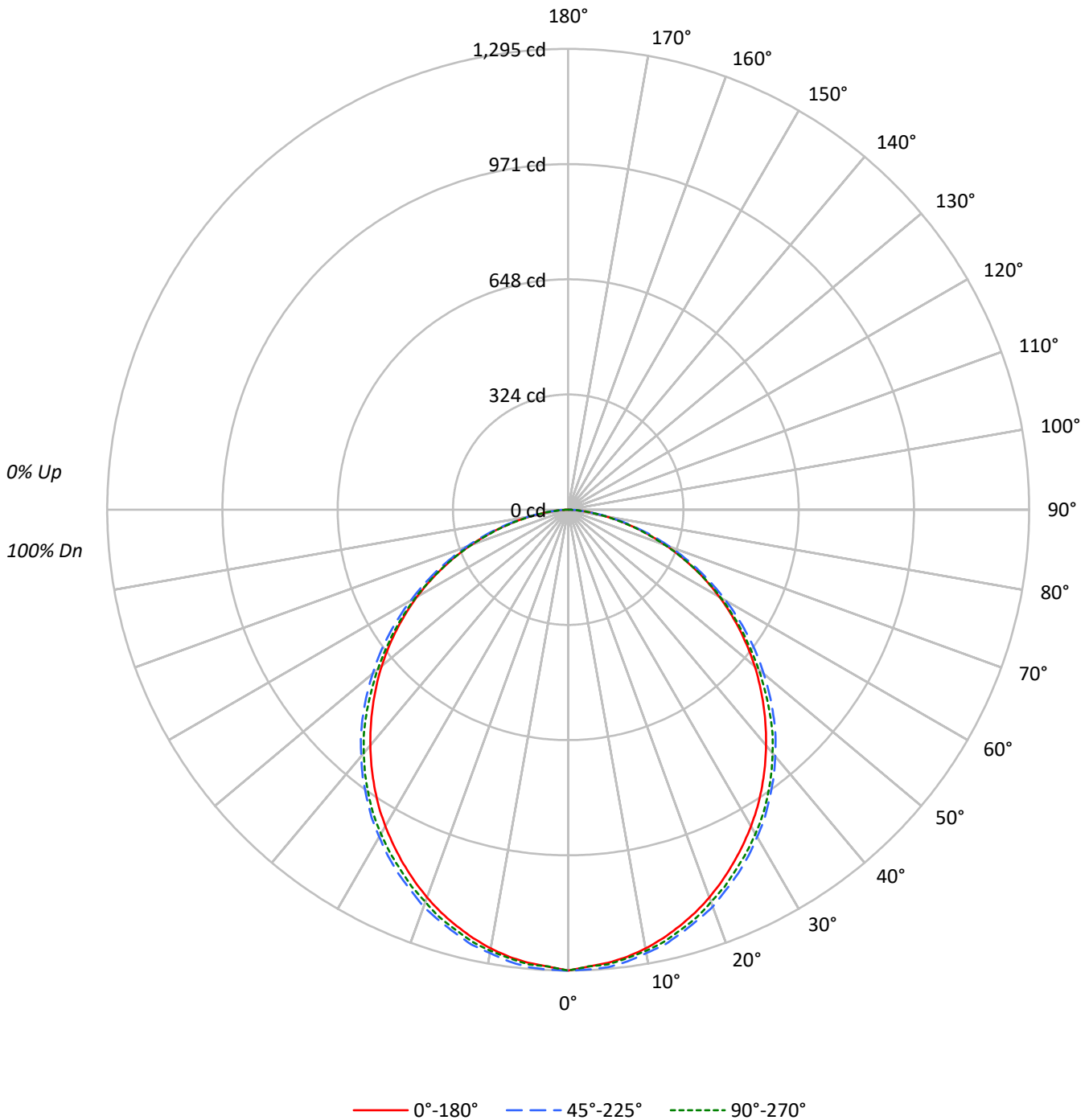
Lumens per Lamp: N/A  
Luminaire Lumens: 3405.2 lumens  
Efficiency: N/A  
Efficacy: 102.3 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

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°	6971	6971	6971
5°	6906	6971	6928
10°	6843	6913	6879
15°	6748	6857	6809
20°	6642	6800	6718
25°	6513	6702	6625
30°	6381	6597	6537
35°	6237	6485	6424
40°	6075	6355	6275
45°	5905	6202	6086
50°	5727	6004	5847
55°	5519	5778	5601
60°	5284	5504	5334
65°	4981	5172	4983
70°	4582	4768	4532
75°	4036	4217	3974
80°	3279	3422	3242
85°	2285	2433	2377



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	122.0	3.6
10°-20°	345.7	10.2
20°-30°	515.6	15.1
30°-40°	610.9	17.9
40°-50°	618.2	18.2
50°-60°	539.9	15.9
60°-70°	394.5	11.6
70°-80°	209.9	6.2
80°-90°	48.5	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°	983.2	28.9
0°-40°	1594.2	46.8
0°-60°	2752.2	80.8
0°-90°	3405.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3405.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1295	1295	1295	1295	1295	
5°	1278	1281	1290	1293	1282	121
15°	1211	1219	1231	1238	1222	341
25°	1097	1110	1129	1133	1116	505
35°	949	964	987	994	978	594
45°	776	790	815	816	800	598
55°	588	600	616	607	597	526
65°	391	399	406	398	391	387
75°	194	198	203	195	191	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°	1295.2	1295.2	1295.2	1295.2	1295.2
2.5°	1285.1	1289.3	1293.6	1295.5	1285.0
5°	1278.3	1280.8	1290.4	1293.3	1282.4
7.5°	1267.3	1270.9	1280.2	1281.6	1271.1
10°	1252.2	1258.6	1264.9	1271.6	1258.8
12.5°	1232.9	1241.6	1252.2	1253.4	1243.7
15°	1211.1	1219.2	1230.7	1238.1	1222.1
17.5°	1186.9	1194.7	1209.5	1210.9	1201.2
20°	1159.7	1169.4	1187.3	1190.4	1173.0
22.5°	1129.0	1142.1	1156.9	1159.9	1147.0
25°	1096.7	1110.2	1128.6	1132.7	1115.6
27.5°	1063.0	1075.9	1096.6	1099.5	1085.1
30°	1026.8	1039.0	1061.6	1066.6	1051.9
32.5°	990.1	1002.2	1027.3	1031.5	1017.2
35°	949.3	964.2	987.0	993.9	977.8
37.5°	907.8	922.2	948.1	954.3	937.1
40°	864.7	879.0	904.5	909.7	893.1
42.5°	820.7	835.0	862.3	863.1	849.4
45°	775.8	789.6	814.9	815.6	799.6
47.5°	730.2	744.1	766.8	764.2	749.1
50°	684.0	697.3	717.1	712.0	698.3
52.5°	636.3	649.1	667.9	659.5	646.7
55°	588.2	600.1	615.8	606.9	596.9
57.5°	539.8	551.8	563.8	554.8	546.1
60°	490.9	501.5	511.3	502.1	495.5
62.5°	441.3	450.3	458.8	450.0	443.8
65°	391.1	399.0	406.1	398.0	391.3
67.5°	341.1	347.9	354.4	346.0	339.1
70°	291.2	297.0	303.0	294.3	288.0
72.5°	242.0	247.1	252.4	244.0	238.5
75°	194.1	198.5	202.8	195.4	191.1
77.5°	148.3	152.1	155.1	150.3	146.1
80°	105.8	108.6	110.4	108.5	104.6
82.5°	68.0	70.0	71.0	70.8	68.3
85°	37.0	37.7	39.4	39.8	38.5
87.5°	14.3	15.2	15.7	16.9	15.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)