

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: P488728

Luminaire Tested: **CLM-12-4-INS-A19156-LD4-3LO-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: P488728  
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-LD4-3LO-35-120-EDD-90  
Description: 1X4 CLM LED LUMINAIRE WITH A19156 LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

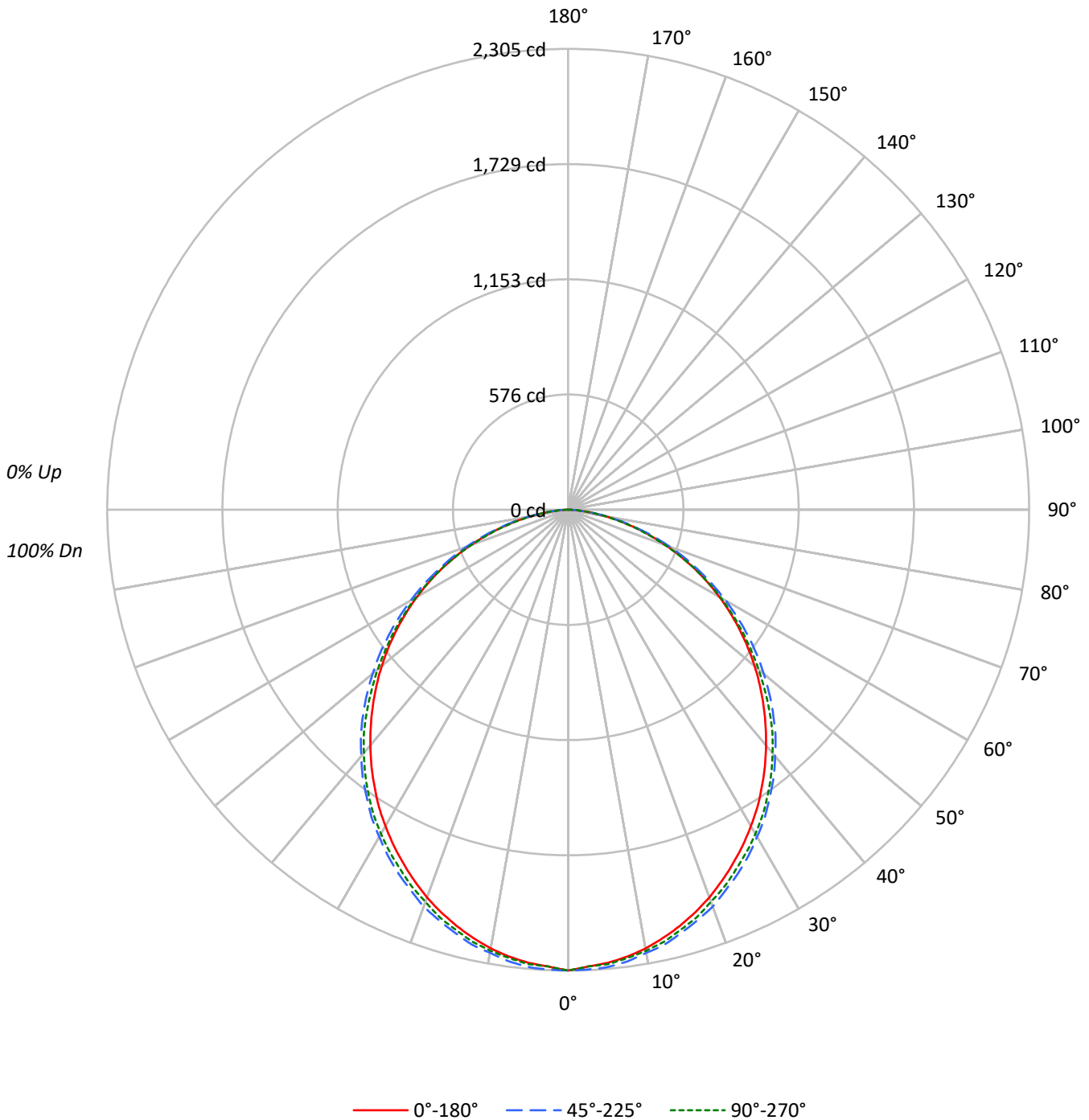
Lumens per Lamp: N/A  
Luminaire Lumens: 6059.8 lumens  
Efficiency: N/A  
Efficacy: 86.3 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 70.2  
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°	6202	6202	6202
5°	6145	6203	6165
10°	6089	6151	6121
15°	6004	6101	6059
20°	5910	6050	5978
25°	5795	5963	5895
30°	5678	5870	5817
35°	5550	5770	5716
40°	5406	5655	5583
45°	5254	5519	5415
50°	5096	5342	5203
55°	4911	5141	4983
60°	4702	4897	4746
65°	4431	4601	4434
70°	4077	4242	4032
75°	3590	3752	3535
80°	2918	3044	2884
85°	2032	2164	2112



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	217.1	3.6
10°-20°	615.2	10.2
20°-30°	917.5	15.1
30°-40°	1087.2	17.9
40°-50°	1100.1	18.2
50°-60°	960.8	15.9
60°-70°	702.1	11.6
70°-80°	373.6	6.2
80°-90°	86.3	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°	1749.7	28.9
0°-40°	2836.9	46.8
0°-60°	4897.8	80.8
0°-90°	6059.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6059.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2305	2305	2305	2305	2305	
5°	2275	2279	2296	2302	2282	216
15°	2155	2170	2190	2203	2175	608
25°	1952	1976	2008	2016	1985	899
35°	1689	1716	1756	1769	1740	1057
45°	1381	1405	1450	1451	1423	1065
55°	1047	1068	1096	1080	1062	936
65°	696	710	723	708	696	689
75°	345	353	361	348	340	367
85°	66	67	70	71	68	83
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2304.9	2304.9	2304.9	2304.9	2304.9
2.5°	2286.9	2294.4	2302.1	2305.4	2286.7
5°	2274.9	2279.2	2296.3	2301.6	2282.1
7.5°	2255.2	2261.7	2278.3	2280.7	2261.9
10°	2228.3	2239.9	2250.9	2262.9	2240.1
12.5°	2194.0	2209.6	2228.3	2230.5	2213.2
15°	2155.3	2169.7	2190.1	2203.4	2174.8
17.5°	2112.1	2126.0	2152.4	2154.8	2137.5
20°	2063.8	2081.1	2112.8	2118.3	2087.4
22.5°	2009.1	2032.4	2058.8	2064.1	2041.3
25°	1951.7	1975.7	2008.4	2015.8	1985.3
27.5°	1891.6	1914.7	1951.4	1956.7	1931.0
30°	1827.3	1848.9	1889.2	1898.1	1871.9
32.5°	1762.0	1783.6	1828.2	1835.7	1810.2
35°	1689.4	1715.9	1756.4	1768.7	1740.1
37.5°	1615.5	1641.2	1687.3	1698.3	1667.6
40°	1538.9	1564.3	1609.7	1618.8	1589.3
42.5°	1460.6	1486.0	1534.5	1536.0	1511.5
45°	1380.6	1405.1	1450.2	1451.4	1422.9
47.5°	1299.4	1324.2	1364.5	1360.0	1333.1
50°	1217.3	1240.8	1276.1	1267.0	1242.8
52.5°	1132.3	1155.1	1188.5	1173.6	1150.8
55°	1046.8	1067.9	1095.8	1079.9	1062.2
57.5°	960.6	982.0	1003.3	987.2	971.9
60°	873.7	892.4	909.9	893.6	881.8
62.5°	785.3	801.4	816.5	800.9	789.8
65°	695.9	710.1	722.6	708.2	696.4
67.5°	607.1	619.1	630.6	615.7	603.5
70°	518.2	528.6	539.1	523.8	512.5
72.5°	430.6	439.7	449.1	434.2	424.3
75°	345.3	353.3	360.9	347.7	340.0
77.5°	263.9	270.6	275.9	267.5	260.1
80°	188.3	193.3	196.4	193.1	186.1
82.5°	121.0	124.6	126.3	126.1	121.5
85°	65.8	67.0	70.1	70.8	68.4
87.5°	25.5	27.1	27.9	30.0	27.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)