

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: P488455

Luminaire Tested: **CLM-12-2-INS-A19156-LD4-2STD-40-120-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: P488455  
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-40-120-EDD  
Description: 1X2 CLM LED LUMINAIRE WITH A19156 LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

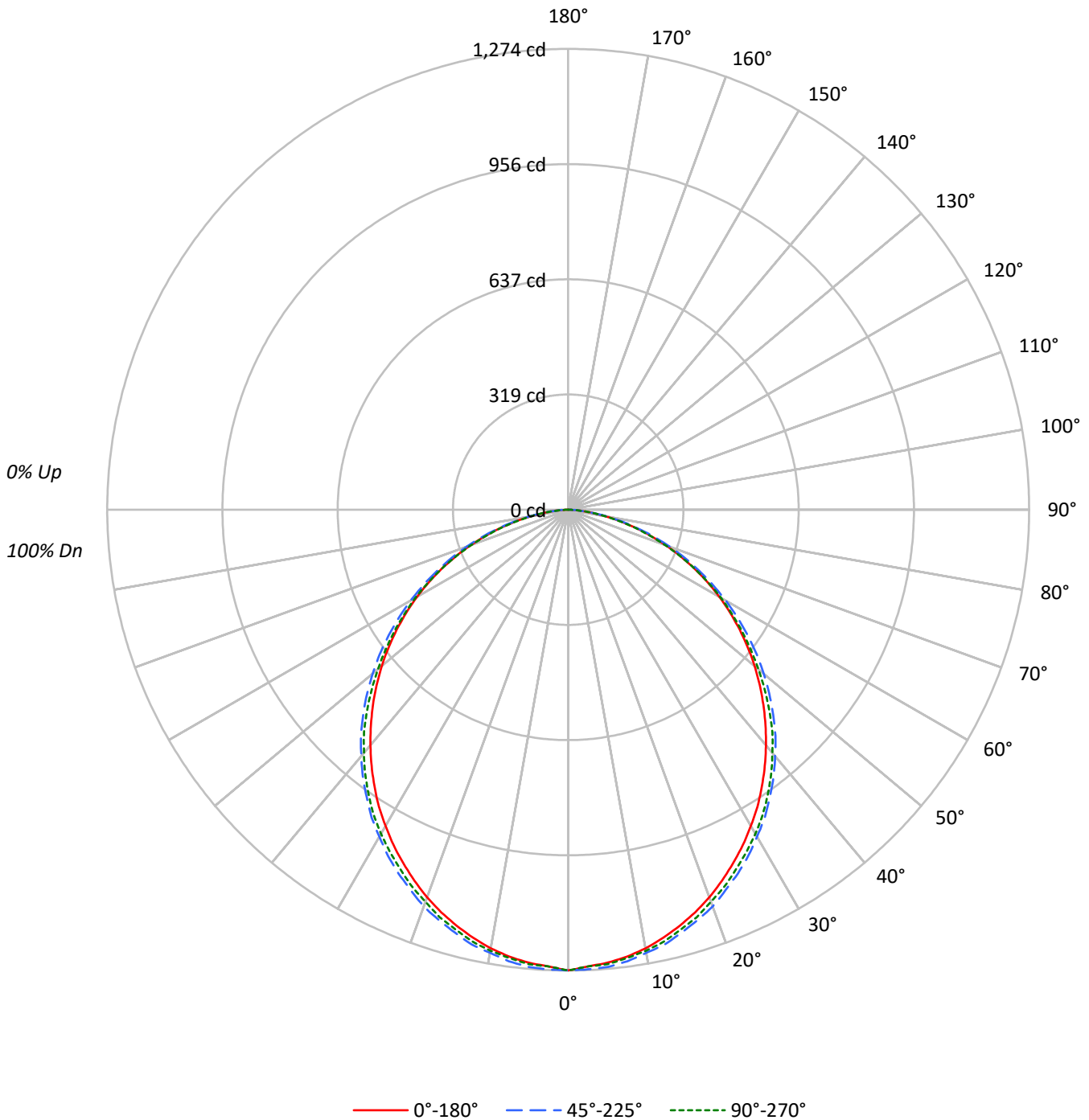
Lumens per Lamp: N/A  
Luminaire Lumens: 3348.4 lumens  
Efficiency: N/A  
Efficacy: 100.6 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

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°	6854	6854	6854
5°	6791	6855	6813
10°	6729	6797	6765
15°	6635	6743	6696
20°	6531	6687	6606
25°	6404	6590	6514
30°	6275	6487	6428
35°	6133	6376	6317
40°	5974	6249	6170
45°	5807	6099	5984
50°	5632	5904	5750
55°	5427	5682	5507
60°	5196	5412	5245
65°	4898	5085	4900
70°	4507	4688	4456
75°	3968	4146	3907
80°	3223	3363	3186
85°	2248	2390	2334



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	119.9	3.6
10°-20°	339.9	10.2
20°-30°	507.0	15.1
30°-40°	600.7	17.9
40°-50°	607.9	18.2
50°-60°	530.9	15.9
60°-70°	388.0	11.6
70°-80°	206.4	6.2
80°-90°	47.7	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°	966.8	28.9
0°-40°	1567.6	46.8
0°-60°	2706.3	80.8
0°-90°	3348.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3348.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1274	1274	1274	1274	1274	
5°	1257	1259	1269	1272	1261	119
15°	1191	1199	1210	1218	1202	336
25°	1078	1092	1110	1114	1097	497
35°	934	948	970	977	962	584
45°	763	776	801	802	786	589
55°	578	590	606	597	587	517
65°	385	392	399	391	385	381
75°	191	195	199	192	188	203
85°	36	37	39	39	38	46
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1273.6	1273.6	1273.6	1273.6	1273.6
2.5°	1263.7	1267.8	1272.0	1273.9	1263.5
5°	1257.0	1259.4	1268.8	1271.8	1261.0
7.5°	1246.1	1249.7	1258.9	1260.2	1249.9
10°	1231.3	1237.7	1243.8	1250.4	1237.8
12.5°	1212.3	1220.9	1231.3	1232.5	1222.9
15°	1190.9	1198.9	1210.2	1217.5	1201.7
17.5°	1167.1	1174.8	1189.4	1190.7	1181.1
20°	1140.4	1149.9	1167.5	1170.5	1153.4
22.5°	1110.1	1123.0	1137.6	1140.5	1127.9
25°	1078.4	1091.7	1109.7	1113.8	1097.0
27.5°	1045.2	1058.0	1078.3	1081.2	1067.0
30°	1009.7	1021.6	1043.9	1048.8	1034.4
32.5°	973.6	985.5	1010.2	1014.3	1000.3
35°	933.5	948.1	970.5	977.3	961.5
37.5°	892.6	906.8	932.3	938.4	921.4
40°	850.3	864.4	889.5	894.5	878.2
42.5°	807.1	821.1	847.9	848.7	835.2
45°	762.9	776.4	801.3	802.0	786.2
47.5°	718.0	731.7	754.0	751.5	736.6
50°	672.6	685.6	705.1	700.1	686.7
52.5°	625.7	638.3	656.7	648.5	635.9
55°	578.4	590.1	605.5	596.7	586.9
57.5°	530.8	542.6	554.4	545.5	537.0
60°	482.7	493.1	502.8	493.8	487.3
62.5°	433.9	442.8	451.2	442.5	436.4
65°	384.6	392.4	399.3	391.3	384.8
67.5°	335.5	342.1	348.5	340.2	333.5
70°	286.4	292.1	297.9	289.4	283.2
72.5°	237.9	243.0	248.1	239.9	234.5
75°	190.8	195.2	199.4	192.1	187.9
77.5°	145.8	149.5	152.5	147.8	143.7
80°	104.0	106.8	108.5	106.7	102.8
82.5°	66.9	68.9	69.8	69.7	67.1
85°	36.4	37.0	38.7	39.1	37.8
87.5°	14.1	15.0	15.4	16.6	15.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)