

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: P489125

Luminaire Tested: **CLM-24-2-INS-A19156-LD4-3LO-35-120-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: P489125
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-24-2-INS-A19156-LD4-3LO-35-120-EDD
Description: 2X2 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

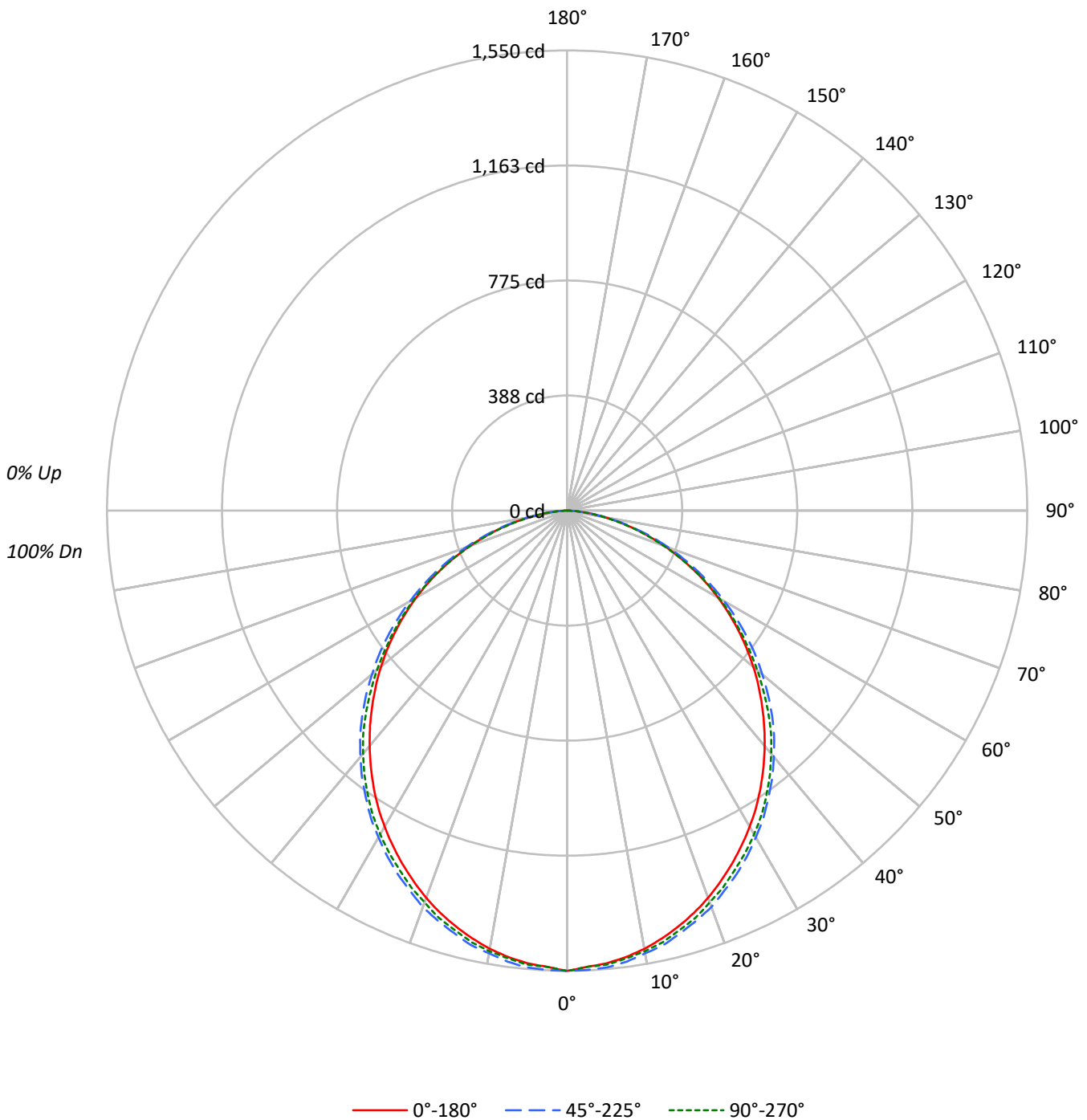
Lumens per Lamp: N/A
Luminaire Lumens: 4076.4 lumens
Efficiency: N/A
Efficacy: 116.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 35.1
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	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°	4172	4172	4172
5°	4134	4173	4147
10°	4096	4138	4118
15°	4039	4104	4076
20°	3976	4070	4021
25°	3898	4011	3965
30°	3819	3949	3913
35°	3733	3881	3846
40°	3636	3804	3756
45°	3534	3713	3643
50°	3428	3594	3500
55°	3304	3458	3352
60°	3163	3294	3193
65°	2981	3095	2983
70°	2743	2854	2712
75°	2415	2524	2378
80°	1963	2047	1940
85°	1368	1457	1420



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	146.0	3.6
10°-20°	413.8	10.2
20°-30°	617.2	15.1
30°-40°	731.4	17.9
40°-50°	740.0	18.2
50°-60°	646.3	15.9
60°-70°	472.3	11.6
70°-80°	251.3	6.2
80°-90°	58.1	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°	1177.0	28.9
0°-40°	1908.4	46.8
0°-60°	3294.7	80.8
0°-90°	4076.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4076.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1550	1550	1550	1550	1550	
5°	1530	1533	1545	1548	1535	145
15°	1450	1460	1473	1482	1463	409
25°	1313	1329	1351	1356	1336	605
35°	1136	1154	1182	1190	1171	711
45°	929	945	976	976	957	716
55°	704	718	737	726	714	629
65°	468	478	486	476	468	463
75°	232	238	243	234	229	247
85°	44	45	47	48	46	56
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1550.5	1550.5	1550.5	1550.5	1550.5
2.5°	1538.4	1543.4	1548.6	1550.8	1538.2
5°	1530.3	1533.2	1544.7	1548.3	1535.2
7.5°	1517.1	1521.4	1532.6	1534.2	1521.6
10°	1499.0	1506.7	1514.2	1522.2	1506.9
12.5°	1475.9	1486.4	1499.0	1500.4	1488.8
15°	1449.9	1459.6	1473.3	1482.2	1463.0
17.5°	1420.8	1430.2	1447.9	1449.6	1437.9
20°	1388.3	1400.0	1421.3	1425.0	1404.2
22.5°	1351.5	1367.2	1384.9	1388.5	1373.1
25°	1312.9	1329.0	1351.0	1356.0	1335.5
27.5°	1272.5	1288.0	1312.7	1316.3	1299.0
30°	1229.2	1243.7	1270.9	1276.9	1259.3
32.5°	1185.3	1199.8	1229.8	1234.9	1217.7
35°	1136.5	1154.2	1181.5	1189.8	1170.6
37.5°	1086.7	1104.0	1135.0	1142.5	1121.8
40°	1035.2	1052.3	1082.8	1089.0	1069.1
42.5°	982.5	999.6	1032.3	1033.2	1016.8
45°	928.7	945.2	975.6	976.4	957.2
47.5°	874.1	890.8	917.9	914.8	896.7
50°	818.9	834.7	858.5	852.3	836.0
52.5°	761.7	777.0	799.5	789.5	774.1
55°	704.2	718.4	737.1	726.5	714.5
57.5°	646.2	660.6	674.9	664.1	653.8
60°	587.7	600.3	612.1	601.1	593.2
62.5°	528.3	539.1	549.3	538.8	531.3
65°	468.2	477.7	486.1	476.4	468.5
67.5°	408.4	416.5	424.2	414.2	406.0
70°	348.6	355.6	362.7	352.3	344.7
72.5°	289.7	295.8	302.1	292.1	285.5
75°	232.3	237.6	242.8	233.9	228.7
77.5°	177.5	182.1	185.6	180.0	175.0
80°	126.7	130.0	132.1	129.9	125.2
82.5°	81.4	83.8	85.0	84.8	81.7
85°	44.3	45.1	47.2	47.7	46.0
87.5°	17.1	18.3	18.7	20.2	18.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)