

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: P556738

Luminaire Tested: **FUSL-12-4-LD4-1STD-35-UNV-81-85-EDD-90**

Issue Date: 7/16/2021

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: P556738
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2105-257-2)
Test Lab: INNOVATION CENTER
Issue Date: 7/16/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FUSL-12-4-LD4-1STD-35-UNV-81-85-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

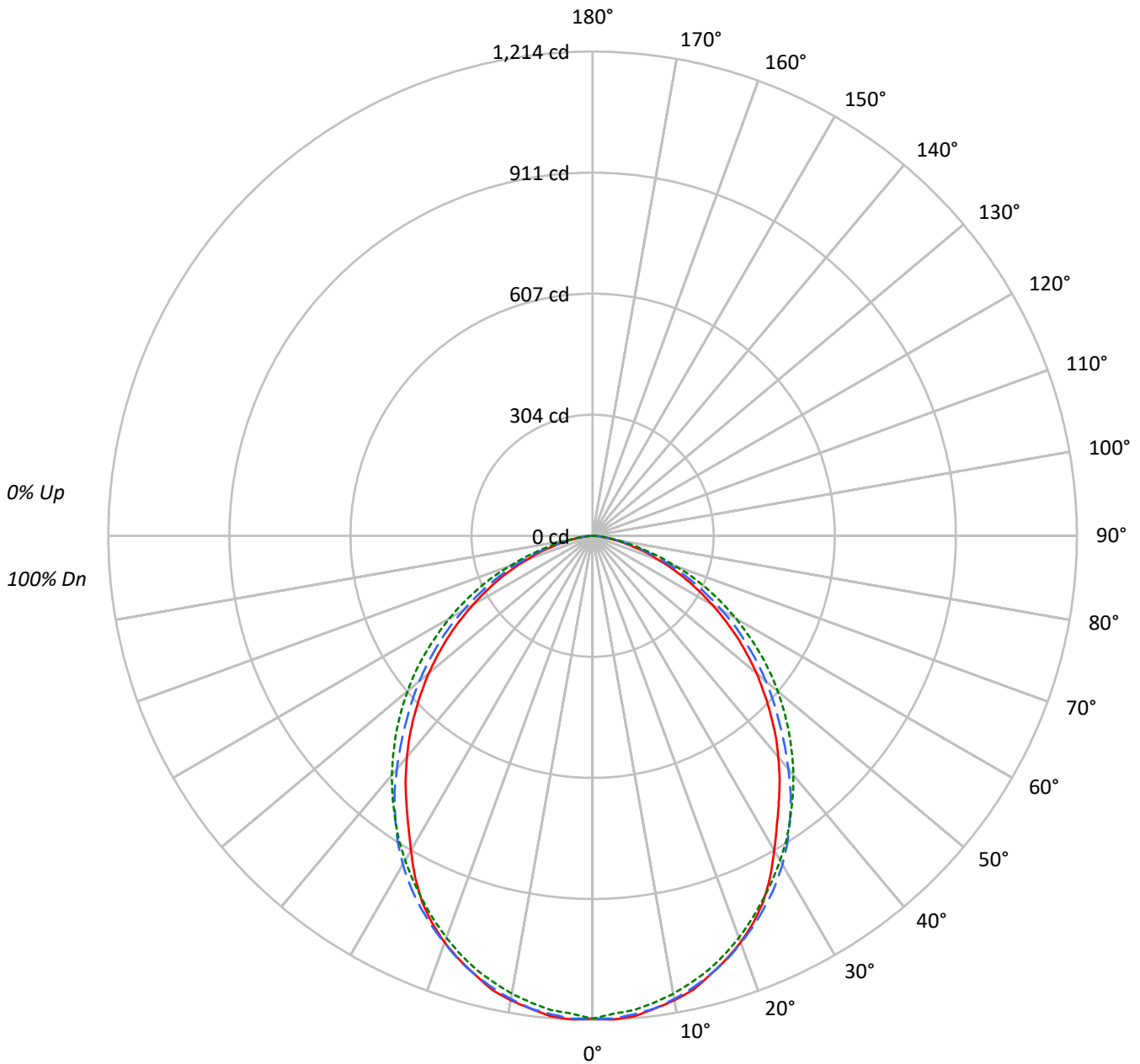
Lumens per Lamp: N/A
Luminaire Lumens: 2799.0 lumens
Efficiency: N/A
Efficacy: 84.1 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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									
RC	80									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	0																
RCR																																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100																			
1	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86																			
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75	73																			
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63																			
4	85	74	65	59	83	72	65	59	70	63	58	68	62	57	65	61	56	54																			
5	78	66	58	51	76	65	57	51	63	56	51	61	55	50	59	54	50	47																			
6	73	60	51	45	71	59	51	45	57	50	45	56	49	44	54	48	44	42																			
7	68	55	46	40	66	54	46	40	52	45	40	51	44	40	49	44	39	37																			
8	63	50	42	36	61	49	41	36	48	41	36	47	40	36	46	40	35	34																			
9	59	46	38	33	58	45	38	33	44	37	32	43	37	32	42	36	32	30																			
10	55	43	35	30	54	42	35	30	41	34	30	40	34	29	39	33	29	28																			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3257	3257	3257
5°	3266	3252	3225
10°	3231	3222	3186
15°	3174	3174	3138
20°	3107	3111	3071
25°	3004	3042	2994
30°	2829	2957	2920
35°	2673	2834	2838
40°	2544	2681	2751
45°	2398	2518	2648
50°	2245	2373	2535
55°	2070	2208	2398
60°	1865	2015	2230
65°	1647	1791	2029
70°	1372	1526	1723
75°	1078	1219	1349
80°	772	857	951
85°	503	503	472



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	114.0	4.1
10°-20°	320.2	11.4
20°-30°	467.9	16.7
30°-40°	531.1	19.0
40°-50°	512.7	18.3
50°-60°	422.9	15.1
60°-70°	281.6	10.1
70°-80°	126.0	4.5
80°-90°	22.6	0.8
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°	902.0	32.2
0°-40°	1433.1	51.2
0°-60°	2368.8	84.6
0°-90°	2799.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2799.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1210	1210	1210	1210	1210	
5°	1209	1209	1204	1198	1194	114
15°	1139	1142	1139	1134	1126	321
25°	1012	1020	1024	1017	1008	463
35°	814	825	863	867	864	510
45°	630	641	662	692	696	486
55°	441	449	471	497	511	394
65°	259	266	281	301	319	256
75°	104	109	117	123	130	113
85°	16	16	16	15	15	22
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1210.5	1210.5	1210.5	1210.5	1210.5
2.5°	1213.8	1214.2	1211.4	1204.0	1199.3
5°	1209.1	1208.6	1204.0	1197.5	1193.8
7.5°	1195.6	1196.5	1195.1	1185.8	1180.7
10°	1182.6	1183.1	1179.3	1171.9	1165.9
12.5°	1165.9	1165.4	1160.3	1156.6	1146.8
15°	1139.3	1142.1	1139.3	1134.2	1126.3
17.5°	1113.8	1113.8	1115.6	1106.8	1100.7
20°	1084.9	1086.3	1086.3	1079.4	1072.4
22.5°	1051.5	1055.6	1057.0	1049.6	1041.2
25°	1011.9	1019.8	1024.5	1017.0	1008.2
27.5°	964.0	976.1	990.1	984.5	974.7
30°	910.5	928.2	951.5	946.8	939.8
32.5°	859.9	877.5	909.6	907.8	904.0
35°	813.8	825.0	862.6	867.3	864.0
37.5°	770.1	780.3	815.7	826.4	823.6
40°	724.1	735.2	763.1	782.2	783.1
42.5°	678.5	689.2	712.0	739.4	739.4
45°	630.1	640.8	661.7	692.0	695.7
47.5°	582.7	593.9	614.3	644.5	650.6
50°	536.2	546.4	566.9	596.2	605.5
52.5°	487.8	499.0	519.0	546.0	559.4
55°	441.3	448.8	470.6	496.7	511.1
57.5°	393.0	399.9	424.6	446.9	461.8
60°	346.5	355.3	374.4	397.1	414.3
62.5°	301.8	311.1	327.4	347.4	366.9
65°	258.6	265.5	281.3	301.3	318.6
67.5°	216.7	222.8	238.6	252.5	270.7
70°	174.4	182.3	193.9	207.4	219.0
72.5°	140.4	143.7	153.5	163.2	175.3
75°	103.7	109.3	117.2	122.8	129.7
77.5°	74.4	77.7	82.3	87.0	93.5
80°	49.8	51.2	55.3	56.3	61.4
82.5°	30.2	31.2	32.1	32.6	34.4
85°	16.3	16.3	16.3	15.3	15.3
87.5°	9.3	9.3	7.9	6.5	4.7
90°	0.0	0.0	0.0	0.0	0.0



Report Generated By 670246072 / DESKTOP-MV3F9LC





— 0°-180° - - 45°-225° - - - - 90°-270°







(END OF REPORT)