

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: P556358

Luminaire Tested: **FUSL-12-4-LD4-1HI-50-UNV-81-87-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: P556358
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-LD4-1HI-50-UNV-81-87-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .375
CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

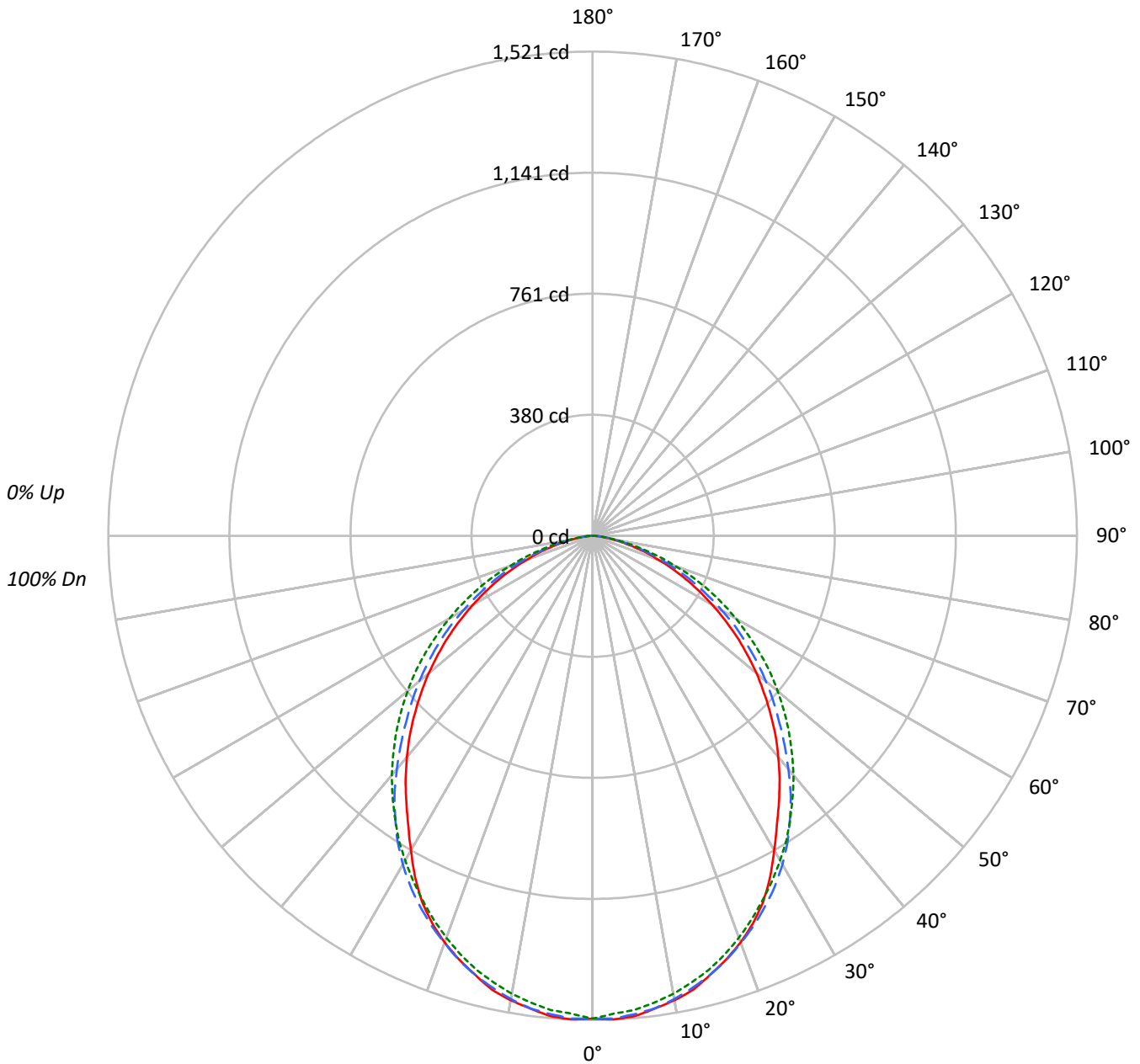
Lumens per Lamp: N/A
Luminaire Lumens: 3507.0 lumens
Efficiency: N/A
Efficacy: 81.2 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 43.2
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									
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°	4081	4081	4081
5°	4092	4075	4040
10°	4049	4038	3992
15°	3977	3977	3931
20°	3893	3898	3848
25°	3765	3811	3751
30°	3545	3704	3659
35°	3350	3551	3556
40°	3187	3359	3447
45°	3005	3155	3317
50°	2812	2974	3176
55°	2594	2767	3004
60°	2336	2524	2794
65°	2063	2245	2541
70°	1719	1912	2159
75°	1351	1526	1691
80°	965	1074	1192
85°	630	630	593



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	142.8	4.1
10°-20°	401.2	11.4
20°-30°	586.2	16.7
30°-40°	665.4	19.0
40°-50°	642.4	18.3
50°-60°	529.9	15.1
60°-70°	352.9	10.1
70°-80°	157.9	4.5
80°-90°	28.3	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°	1130.2	32.2
0°-40°	1795.7	51.2
0°-60°	2968.0	84.6
0°-90°	3507.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3507.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1517	1517	1517	1517	1517	
5°	1515	1514	1508	1500	1496	143
15°	1428	1431	1428	1421	1411	402
25°	1268	1278	1284	1274	1263	581
35°	1020	1034	1081	1087	1083	639
45°	790	803	829	867	872	609
55°	553	562	590	622	640	494
65°	324	333	352	378	399	321
75°	130	137	147	154	163	142
85°	20	20	20	19	19	28
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1516.7	1516.7	1516.7	1516.7	1516.7
2.5°	1520.8	1521.3	1517.9	1508.5	1502.7
5°	1514.9	1514.4	1508.5	1500.4	1495.7
7.5°	1498.0	1499.2	1497.5	1485.8	1479.4
10°	1481.7	1482.3	1477.6	1468.3	1460.8
12.5°	1460.8	1460.2	1453.8	1449.1	1436.9
15°	1427.5	1431.0	1427.5	1421.1	1411.2
17.5°	1395.5	1395.5	1397.8	1386.8	1379.2
20°	1359.4	1361.1	1361.1	1352.4	1343.6
22.5°	1317.4	1322.7	1324.4	1315.1	1304.6
25°	1267.9	1277.8	1283.6	1274.3	1263.2
27.5°	1207.9	1223.0	1240.5	1233.5	1221.3
30°	1140.9	1163.0	1192.1	1186.3	1177.6
32.5°	1077.4	1099.5	1139.7	1137.4	1132.7
35°	1019.7	1033.7	1080.9	1086.7	1082.6
37.5°	964.9	977.7	1022.0	1035.4	1031.9
40°	907.2	921.2	956.2	980.0	981.2
42.5°	850.1	863.5	892.1	926.4	926.4
45°	789.5	802.9	829.1	867.0	871.7
47.5°	730.1	744.1	769.7	807.6	815.2
50°	671.8	684.6	710.3	747.0	758.6
52.5°	611.2	625.2	650.3	684.1	701.0
55°	553.0	562.3	589.7	622.3	640.4
57.5°	492.4	501.1	532.0	559.9	578.6
60°	434.1	445.2	469.0	497.6	519.2
62.5°	378.2	389.8	410.2	435.3	459.7
65°	324.0	332.7	352.5	377.6	399.1
67.5°	271.5	279.1	298.9	316.4	339.1
70°	218.5	228.4	243.0	259.9	274.4
72.5°	176.0	180.0	192.3	204.5	219.7
75°	129.9	136.9	146.8	153.8	162.6
77.5°	93.2	97.3	103.1	109.0	117.1
80°	62.3	64.1	69.3	70.5	76.9
82.5°	37.9	39.0	40.2	40.8	43.1
85°	20.4	20.4	20.4	19.2	19.2
87.5°	11.7	11.7	9.9	8.2	5.8
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)