

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: P556163

Luminaire Tested: **FUSL-12-4-LD4-1HI-30-UNV-81-85-EDD**

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: P556163
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-30-UNV-81-85-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

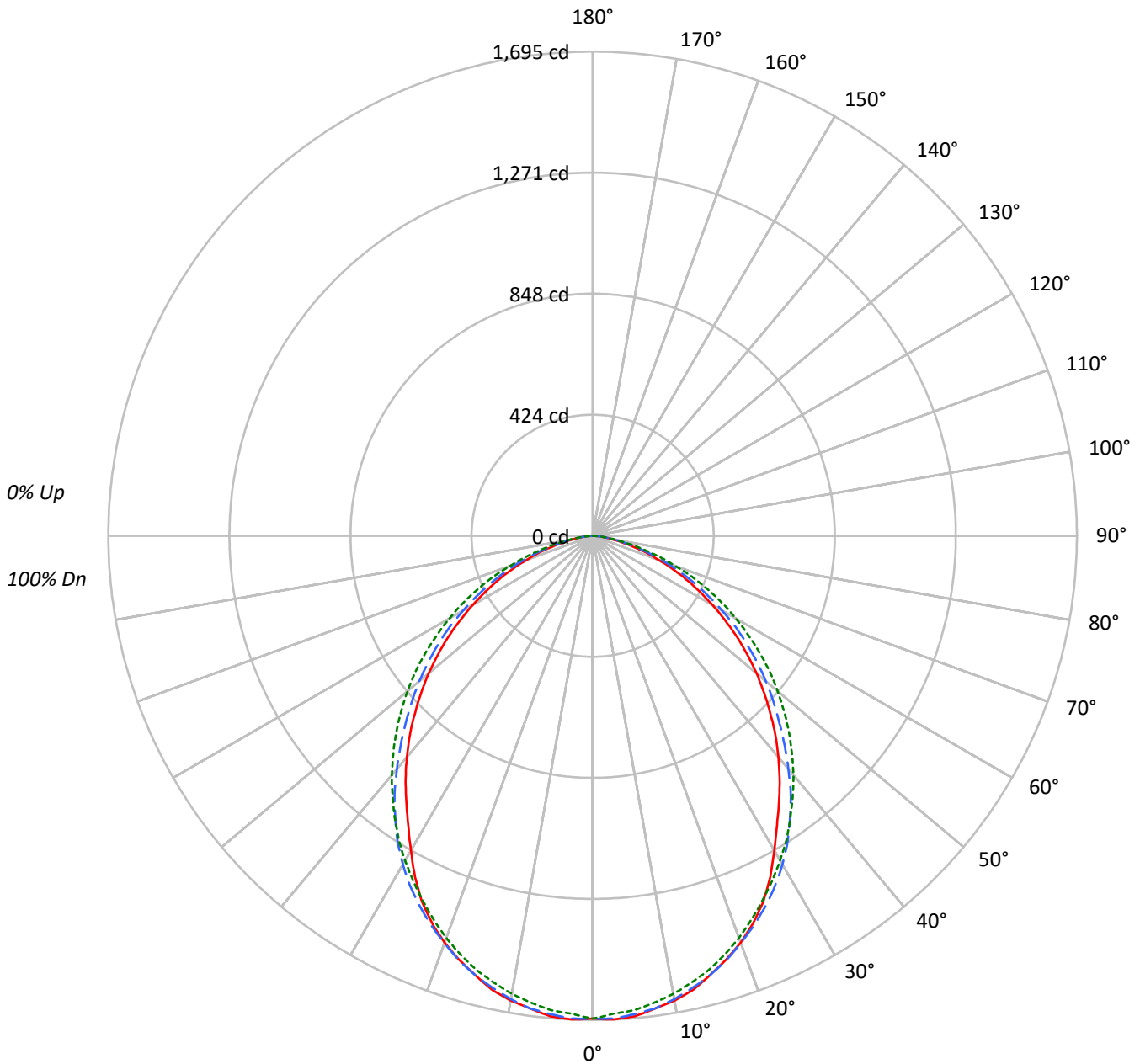
Lumens per Lamp: N/A
Luminaire Lumens: 3909.0 lumens
Efficiency: N/A
Efficacy: 90.5 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P556163

CATALOG NUMBER: FUSL-12-4-LD4-1HI-30-UNV-81-85-EDD

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°	4549	4549	4549
5°	4561	4542	4504
10°	4513	4500	4449
15°	4433	4433	4382
20°	4339	4344	4289
25°	4196	4248	4181
30°	3951	4129	4079
35°	3734	3958	3964
40°	3552	3744	3842
45°	3349	3517	3698
50°	3135	3314	3540
55°	2891	3084	3349
60°	2604	2814	3115
65°	2299	2502	2833
70°	1916	2131	2407
75°	1506	1702	1884
80°	1077	1198	1328
85°	701	701	661



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	159.2	4.1
10°-20°	447.2	11.4
20°-30°	653.4	16.7
30°-40°	741.7	19.0
40°-50°	716.0	18.3
50°-60°	590.7	15.1
60°-70°	393.3	10.1
70°-80°	176.0	4.5
80°-90°	31.5	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°	1259.8	32.2
0°-40°	2001.5	51.2
0°-60°	3308.2	84.6
0°-90°	3909.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3909.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1690	1690	1690	1690	1690	
5°	1689	1688	1681	1672	1667	160
15°	1591	1595	1591	1584	1573	449
25°	1413	1424	1431	1420	1408	647
35°	1137	1152	1205	1211	1207	712
45°	880	895	924	966	972	679
55°	616	627	657	694	714	550
65°	361	371	393	421	445	358
75°	145	153	164	172	181	158
85°	23	23	23	21	21	31
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1690.5	1690.5	1690.5	1690.5	1690.5
2.5°	1695.1	1695.7	1691.8	1681.4	1675.0
5°	1688.6	1687.9	1681.4	1672.4	1667.2
7.5°	1669.8	1671.1	1669.1	1656.1	1649.0
10°	1651.6	1652.2	1647.0	1636.6	1628.2
12.5°	1628.2	1627.5	1620.4	1615.2	1601.6
15°	1591.2	1595.1	1591.2	1584.0	1573.0
17.5°	1555.5	1555.5	1558.1	1545.7	1537.3
20°	1515.2	1517.1	1517.1	1507.4	1497.7
22.5°	1468.4	1474.3	1476.2	1465.8	1454.1
25°	1413.2	1424.3	1430.8	1420.4	1408.0
27.5°	1346.3	1363.2	1382.7	1374.9	1361.3
30°	1271.6	1296.3	1328.8	1322.3	1312.6
32.5°	1200.8	1225.5	1270.3	1267.7	1262.5
35°	1136.6	1152.1	1204.7	1211.2	1206.7
37.5°	1075.5	1089.8	1139.2	1154.1	1150.2
40°	1011.2	1026.8	1065.8	1092.4	1093.7
42.5°	947.6	962.5	994.3	1032.6	1032.6
45°	880.0	895.0	924.2	966.4	971.6
47.5°	813.8	829.4	857.9	900.2	908.6
50°	748.8	763.1	791.7	832.6	845.6
52.5°	681.3	696.9	724.8	762.5	781.3
55°	616.3	626.7	657.3	693.6	713.8
57.5°	548.8	558.5	593.0	624.1	644.9
60°	483.8	496.2	522.8	554.6	578.7
62.5°	421.5	434.5	457.2	485.1	512.4
65°	361.1	370.8	392.9	420.8	444.9
67.5°	302.6	311.1	333.2	352.7	378.0
70°	243.5	254.6	270.8	289.7	305.9
72.5°	196.1	200.7	214.3	228.0	244.8
75°	144.8	152.6	163.7	171.5	181.2
77.5°	103.9	108.5	115.0	121.4	130.5
80°	69.5	71.4	77.3	78.6	85.7
82.5°	42.2	43.5	44.8	45.5	48.1
85°	22.7	22.7	22.7	21.4	21.4
87.5°	13.0	13.0	11.0	9.1	6.5
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)