

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: P556865

Luminaire Tested: **FUSL-12-4-LD4-1STD-50-UNV-81-84-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: P556865
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-50-UNV-81-84-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

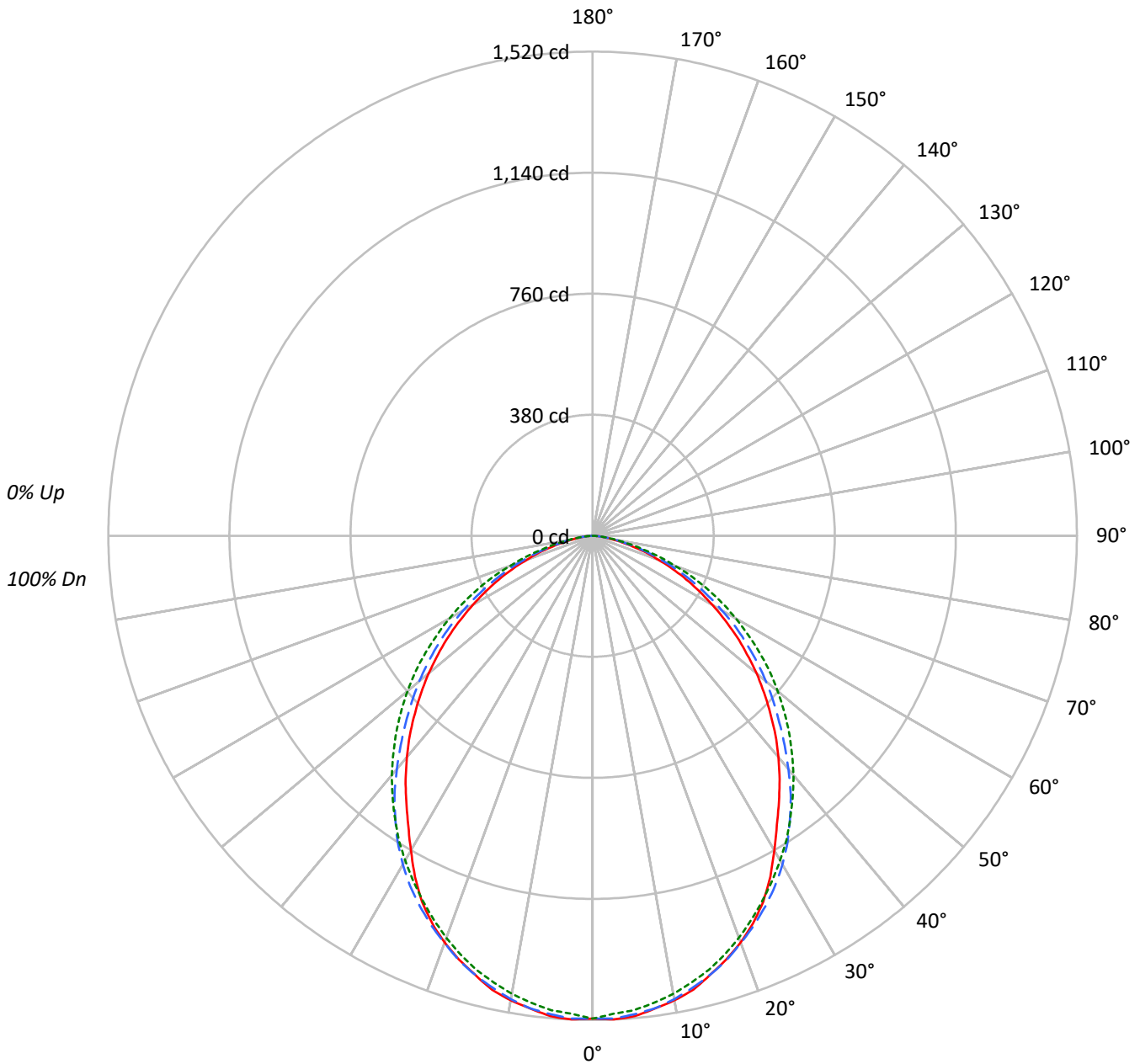
Lumens per Lamp: N/A
Luminaire Lumens: 3505.0 lumens
Efficiency: N/A
Efficacy: 105.3 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	4079	4079	4079
5°	4090	4073	4038
10°	4047	4035	3989
15°	3975	3975	3929
20°	3891	3895	3846
25°	3763	3809	3749
30°	3543	3702	3657
35°	3348	3549	3554
40°	3185	3357	3445
45°	3003	3154	3315
50°	2811	2972	3174
55°	2593	2765	3003
60°	2335	2523	2793
65°	2062	2243	2540
70°	1718	1910	2158
75°	1351	1525	1690
80°	965	1074	1192
85°	630	630	593



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	142.7	4.1
10°-20°	400.9	11.4
20°-30°	585.9	16.7
30°-40°	665.1	19.0
40°-50°	642.0	18.3
50°-60°	529.6	15.1
60°-70°	352.7	10.1
70°-80°	157.8	4.5
80°-90°	28.2	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°	1129.6	32.2
0°-40°	1794.6	51.2
0°-60°	2966.3	84.6
0°-90°	3505.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3505.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1516	1516	1516	1516	1516	
5°	1514	1514	1508	1500	1495	143
15°	1427	1430	1427	1420	1410	402
25°	1267	1277	1283	1274	1262	580
35°	1019	1033	1080	1086	1082	639
45°	789	802	829	866	871	609
55°	553	562	589	622	640	493
65°	324	332	352	377	399	321
75°	130	137	147	154	162	142
85°	20	20	20	19	19	27
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1515.8	1515.8	1515.8	1515.8	1515.8
2.5°	1519.9	1520.5	1517.0	1507.7	1501.8
5°	1514.1	1513.5	1507.7	1499.5	1494.9
7.5°	1497.2	1498.4	1496.6	1485.0	1478.6
10°	1480.9	1481.5	1476.8	1467.5	1459.9
12.5°	1459.9	1459.3	1452.9	1448.3	1436.0
15°	1426.7	1430.2	1426.7	1420.3	1410.4
17.5°	1394.7	1394.7	1397.0	1386.0	1378.4
20°	1358.6	1360.3	1360.3	1351.6	1342.9
22.5°	1316.7	1321.9	1323.7	1314.3	1303.9
25°	1267.2	1277.1	1282.9	1273.6	1262.5
27.5°	1207.2	1222.3	1239.8	1232.8	1220.6
30°	1140.2	1162.3	1191.5	1185.6	1176.9
32.5°	1076.7	1098.9	1139.1	1136.7	1132.1
35°	1019.1	1033.1	1080.2	1086.1	1082.0
37.5°	964.3	977.2	1021.4	1034.8	1031.3
40°	906.7	920.7	955.6	979.5	980.7
42.5°	849.6	863.0	891.6	925.9	925.9
45°	789.1	802.5	828.7	866.5	871.2
47.5°	729.7	743.6	769.3	807.1	814.7
50°	671.4	684.2	709.9	746.6	758.2
52.5°	610.9	624.8	649.9	683.7	700.6
55°	552.6	562.0	589.3	621.9	640.0
57.5°	492.1	500.8	531.7	559.6	578.3
60°	433.8	444.9	468.8	497.3	518.9
62.5°	377.9	389.6	410.0	435.0	459.5
65°	323.8	332.5	352.3	377.4	398.9
67.5°	271.4	278.9	298.7	316.2	338.9
70°	218.4	228.3	242.8	259.7	274.3
72.5°	175.9	179.9	192.2	204.4	219.5
75°	129.9	136.8	146.7	153.7	162.5
77.5°	93.2	97.3	103.1	108.9	117.0
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°	11.6	11.6	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)