

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: P556295

Luminaire Tested: **FUSL-12-4-LD4-1HI-40-UNV-81-87-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: P556295
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-40-UNV-81-87-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .375
CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

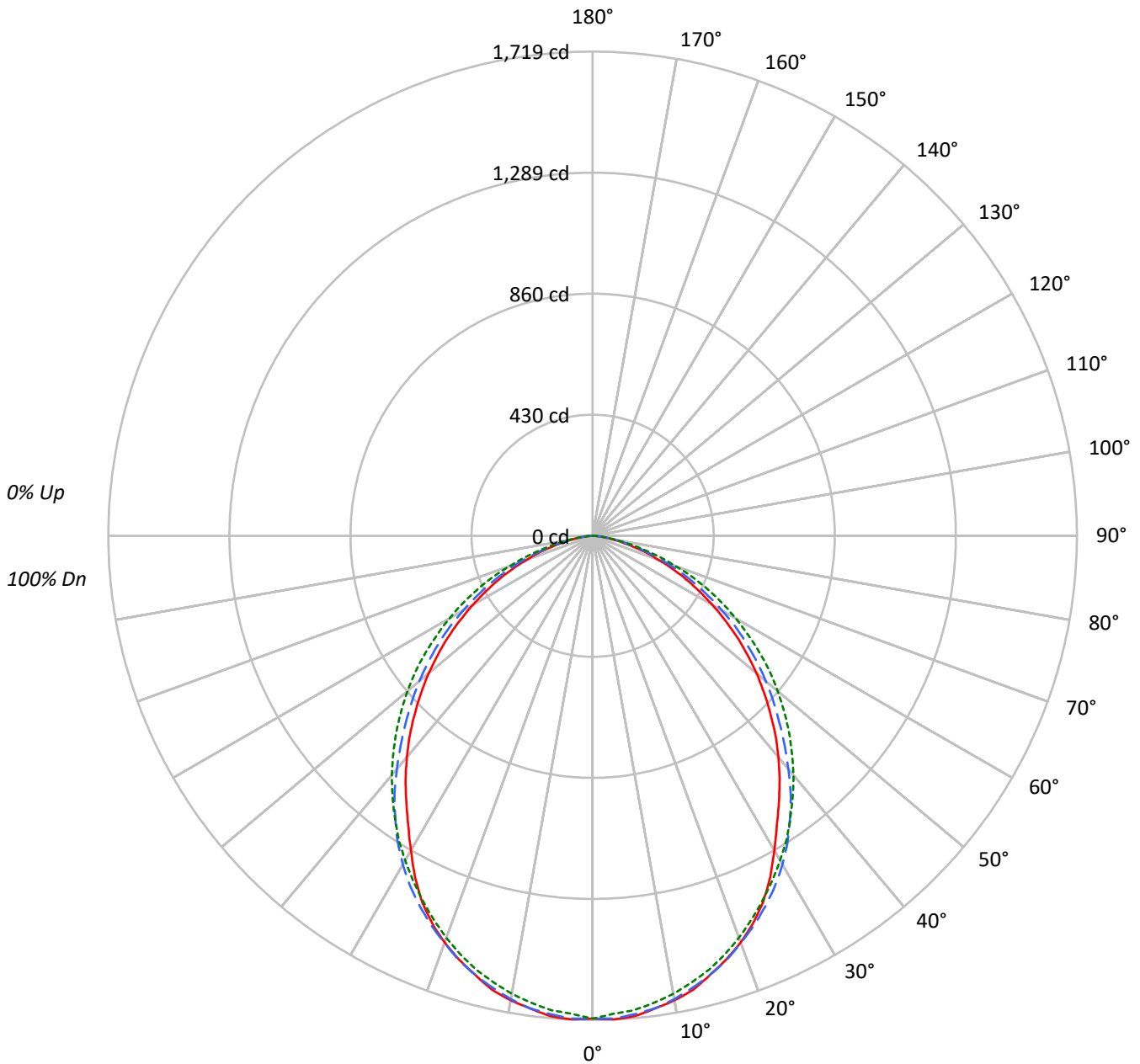
Lumens per Lamp: N/A
Luminaire Lumens: 3964.0 lumens
Efficiency: N/A
Efficacy: 91.8 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	4613	4613	4613
5°	4626	4606	4567
10°	4576	4564	4512
15°	4495	4495	4444
20°	4400	4406	4349
25°	4255	4308	4239
30°	4007	4187	4136
35°	3786	4013	4020
40°	3602	3797	3896
45°	3396	3567	3750
50°	3179	3361	3590
55°	2932	3127	3396
60°	2641	2854	3158
65°	2332	2537	2872
70°	1943	2161	2441
75°	1527	1726	1910
80°	1093	1215	1347
85°	713	713	670



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	161.4	4.1
10°-20°	453.4	11.4
20°-30°	662.6	16.7
30°-40°	752.2	19.0
40°-50°	726.1	18.3
50°-60°	599.0	15.1
60°-70°	398.9	10.1
70°-80°	178.5	4.5
80°-90°	31.9	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°	1277.5	32.2
0°-40°	2029.6	51.2
0°-60°	3354.7	84.6
0°-90°	3964.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3964.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1714	1714	1714	1714	1714	
5°	1712	1712	1705	1696	1691	162
15°	1614	1618	1614	1606	1595	455
25°	1433	1444	1451	1440	1428	656
35°	1152	1168	1222	1228	1224	722
45°	892	908	937	980	985	689
55°	625	636	666	703	724	558
65°	366	376	398	427	451	363
75°	147	155	166	174	184	161
85°	23	23	23	22	22	31
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1714.3	1714.3	1714.3	1714.3	1714.3
2.5°	1718.9	1719.6	1715.6	1705.1	1698.5
5°	1712.4	1711.7	1705.1	1695.9	1690.6
7.5°	1693.3	1694.6	1692.6	1679.4	1672.2
10°	1674.8	1675.5	1670.2	1659.7	1651.1
12.5°	1651.1	1650.4	1643.2	1637.9	1624.1
15°	1613.6	1617.5	1613.6	1606.3	1595.1
17.5°	1577.3	1577.3	1580.0	1567.5	1558.9
20°	1536.5	1538.5	1538.5	1528.6	1518.7
22.5°	1489.1	1495.0	1497.0	1486.5	1474.6
25°	1433.1	1444.3	1450.9	1440.4	1427.8
27.5°	1365.3	1382.4	1402.2	1394.2	1380.4
30°	1289.5	1314.6	1347.5	1340.9	1331.0
32.5°	1217.7	1242.8	1288.2	1285.6	1280.3
35°	1152.5	1168.4	1221.7	1228.3	1223.7
37.5°	1090.6	1105.1	1155.2	1170.3	1166.4
40°	1025.4	1041.2	1080.8	1107.8	1109.1
42.5°	960.9	976.0	1008.3	1047.2	1047.2
45°	892.4	907.5	937.2	980.0	985.3
47.5°	825.2	841.0	870.0	912.8	921.4
50°	759.4	773.9	802.8	844.3	857.5
52.5°	690.9	706.7	735.0	773.2	792.3
55°	625.0	635.5	666.5	703.4	723.8
57.5°	556.5	566.4	601.3	632.9	654.0
60°	490.7	503.2	530.2	562.4	586.8
62.5°	427.4	440.6	463.7	492.0	519.6
65°	366.2	376.1	398.5	426.8	451.1
67.5°	306.9	315.5	337.9	357.6	383.3
70°	247.0	258.2	274.6	293.7	310.2
72.5°	198.9	203.5	217.3	231.2	248.3
75°	146.9	154.8	166.0	173.9	183.7
77.5°	105.4	110.0	116.6	123.2	132.4
80°	70.5	72.4	78.4	79.7	86.9
82.5°	42.8	44.1	45.4	46.1	48.7
85°	23.1	23.1	23.1	21.7	21.7
87.5°	13.2	13.2	11.2	9.2	6.6
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)