

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: P556249

Luminaire Tested: **FUSL-12-4-LD4-1HI-35-UNV-82-88-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: P556249
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-35-UNV-82-88-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

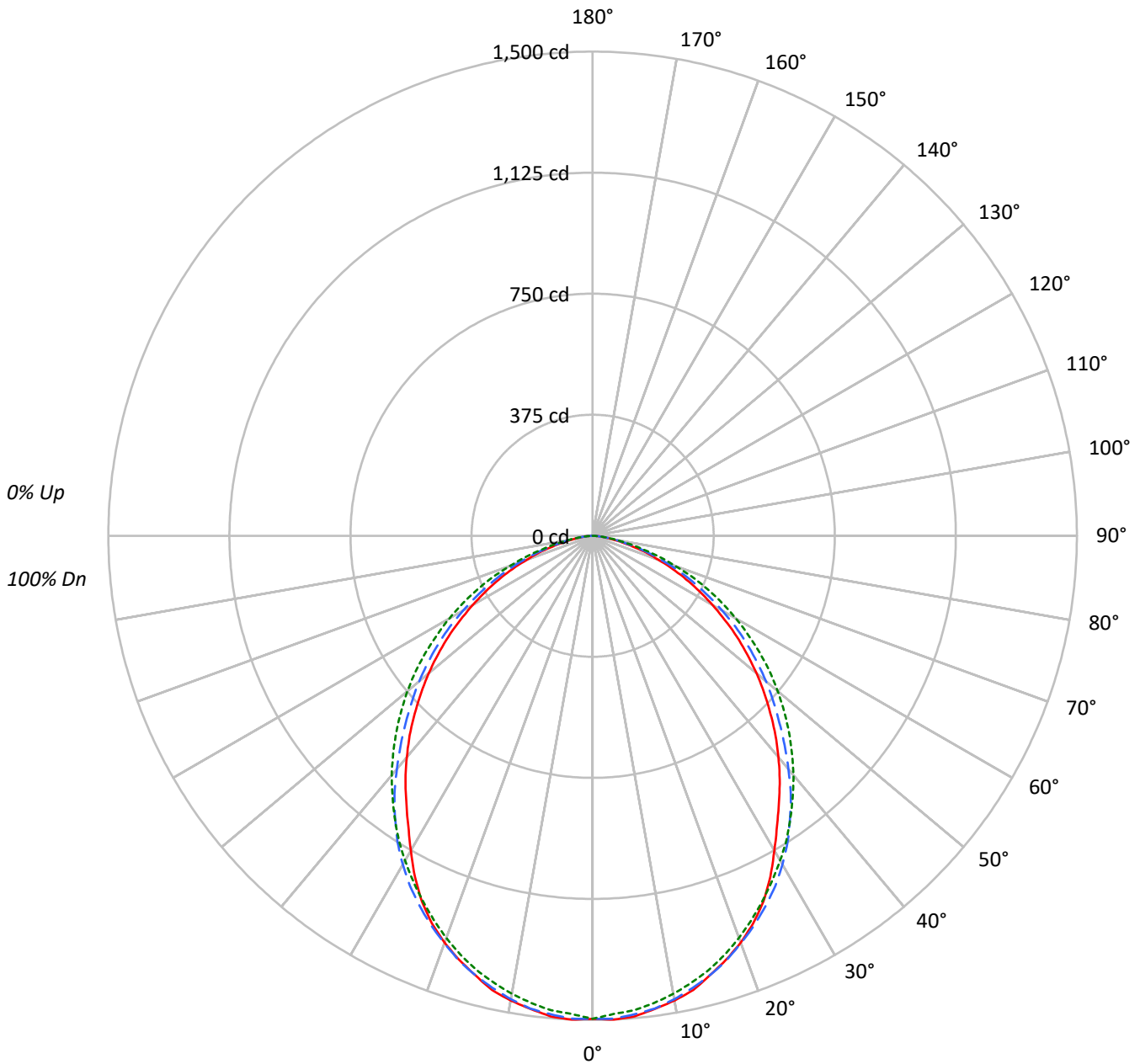
Lumens per Lamp: N/A
Luminaire Lumens: 3460.0 lumens
Efficiency: N/A
Efficacy: 80.1 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	4027	4027	4027
5°	4037	4020	3986
10°	3995	3983	3938
15°	3924	3924	3879
20°	3840	3846	3796
25°	3714	3760	3700
30°	3498	3655	3610
35°	3305	3503	3509
40°	3144	3314	3401
45°	2964	3113	3273
50°	2775	2934	3134
55°	2559	2730	2964
60°	2305	2491	2757
65°	2035	2215	2507
70°	1696	1886	2131
75°	1333	1507	1668
80°	953	1060	1176
85°	621	621	587



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	140.9	4.1
10°-20°	395.8	11.4
20°-30°	578.4	16.7
30°-40°	656.5	19.0
40°-50°	633.8	18.3
50°-60°	522.8	15.1
60°-70°	348.2	10.1
70°-80°	155.8	4.5
80°-90°	27.9	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°	1115.1	32.2
0°-40°	1771.6	51.2
0°-60°	2928.2	84.6
0°-90°	3460.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3460.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1496	1496	1496	1496	1496	
5°	1495	1494	1488	1480	1476	141
15°	1408	1412	1408	1402	1392	397
25°	1251	1261	1266	1257	1246	573
35°	1006	1020	1066	1072	1068	630
45°	779	792	818	855	860	601
55°	546	555	582	614	632	487
65°	320	328	348	372	394	317
75°	128	135	145	152	160	140
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°	1496.4	1496.4	1496.4	1496.4	1496.4
2.5°	1500.4	1501.0	1497.5	1488.3	1482.6
5°	1494.6	1494.1	1488.3	1480.3	1475.7
7.5°	1478.0	1479.1	1477.4	1465.9	1459.6
10°	1461.9	1462.4	1457.8	1448.6	1441.2
12.5°	1441.2	1440.6	1434.3	1429.7	1417.6
15°	1408.4	1411.9	1408.4	1402.1	1392.3
17.5°	1376.8	1376.8	1379.1	1368.2	1360.7
20°	1341.1	1342.9	1342.9	1334.3	1325.6
22.5°	1299.8	1304.9	1306.7	1297.5	1287.1
25°	1250.9	1260.7	1266.4	1257.2	1246.3
27.5°	1191.7	1206.6	1223.9	1217.0	1204.9
30°	1125.6	1147.4	1176.2	1170.4	1161.8
32.5°	1062.9	1084.8	1124.4	1122.1	1117.5
35°	1006.0	1019.8	1066.4	1072.1	1068.1
37.5°	952.0	964.6	1008.3	1021.5	1018.1
40°	895.1	908.9	943.3	966.9	968.1
42.5°	838.7	851.9	880.1	914.0	914.0
45°	778.9	792.2	818.0	855.4	860.0
47.5°	720.3	734.1	759.4	796.8	804.2
50°	662.8	675.5	700.8	737.0	748.5
52.5°	603.0	616.8	641.5	674.9	691.6
55°	545.5	554.7	581.8	614.0	631.8
57.5°	485.8	494.4	524.8	552.4	570.8
60°	428.3	439.2	462.8	490.9	512.2
62.5°	373.1	384.6	404.7	429.4	453.6
65°	319.6	328.2	347.8	372.5	393.8
67.5°	267.9	275.4	294.9	312.1	334.6
70°	215.6	225.3	239.7	256.4	270.8
72.5°	173.6	177.6	189.7	201.8	216.7
75°	128.2	135.1	144.9	151.8	160.4
77.5°	92.0	96.0	101.8	107.5	115.5
80°	61.5	63.2	68.4	69.6	75.9
82.5°	37.4	38.5	39.7	40.2	42.5
85°	20.1	20.1	20.1	19.0	19.0
87.5°	11.5	11.5	9.8	8.0	5.7
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)