

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: P556855

Luminaire Tested: **FUSL-12-4-LD4-1STD-50-UNV-80-87-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: P556855
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-80-87-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND
.375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

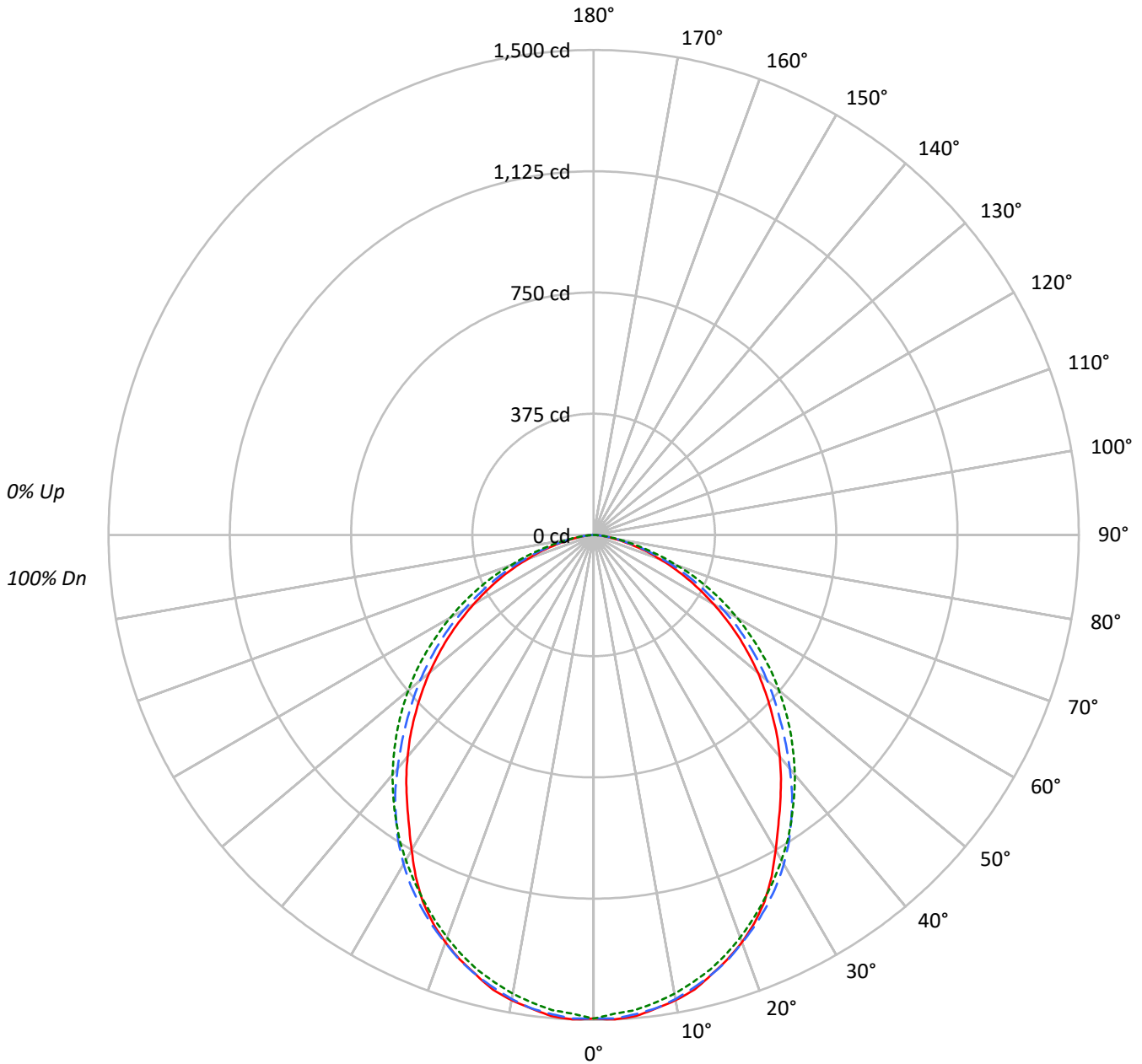
Lumens per Lamp: N/A
Luminaire Lumens: 3459.0 lumens
Efficiency: N/A
Efficacy: 103.9 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	4025	4025	4025
5°	4036	4019	3985
10°	3993	3982	3937
15°	3923	3923	3878
20°	3840	3844	3795
25°	3713	3759	3699
30°	3497	3654	3609
35°	3304	3502	3508
40°	3143	3313	3400
45°	2963	3112	3272
50°	2774	2933	3133
55°	2559	2729	2963
60°	2304	2490	2756
65°	2034	2214	2507
70°	1696	1885	2130
75°	1333	1506	1667
80°	953	1060	1176
85°	621	621	587



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	140.8	4.1
10°-20°	395.7	11.4
20°-30°	578.2	16.7
30°-40°	656.3	19.0
40°-50°	633.6	18.3
50°-60°	522.7	15.1
60°-70°	348.1	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°	1114.7	32.2
0°-40°	1771.1	51.2
0°-60°	2927.4	84.6
0°-90°	3459.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3459.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1496	1496	1496	1496	1496	
5°	1494	1494	1488	1480	1475	141
15°	1408	1411	1408	1402	1392	397
25°	1250	1260	1266	1257	1246	573
35°	1006	1020	1066	1072	1068	630
45°	779	792	818	855	860	601
55°	545	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°	1495.9	1495.9	1495.9	1495.9	1495.9
2.5°	1500.0	1500.5	1497.1	1487.9	1482.1
5°	1494.2	1493.6	1487.9	1479.8	1475.2
7.5°	1477.5	1478.7	1477.0	1465.5	1459.1
10°	1461.4	1462.0	1457.4	1448.2	1440.8
12.5°	1440.8	1440.2	1433.9	1429.3	1417.2
15°	1408.0	1411.4	1408.0	1401.7	1391.9
17.5°	1376.4	1376.4	1378.7	1367.8	1360.3
20°	1340.8	1342.5	1342.5	1333.9	1325.2
22.5°	1299.4	1304.6	1306.3	1297.1	1286.7
25°	1250.5	1260.3	1266.1	1256.9	1245.9
27.5°	1191.3	1206.3	1223.5	1216.6	1204.6
30°	1125.3	1147.1	1175.8	1170.1	1161.5
32.5°	1062.6	1084.4	1124.1	1121.8	1117.2
35°	1005.7	1019.5	1066.1	1071.8	1067.8
37.5°	951.7	964.3	1008.0	1021.2	1017.8
40°	894.8	908.6	943.1	966.6	967.8
42.5°	838.5	851.7	879.9	913.8	913.8
45°	778.7	791.9	817.8	855.1	859.7
47.5°	720.1	733.9	759.2	796.5	804.0
50°	662.6	675.3	700.6	736.8	748.3
52.5°	602.9	616.6	641.4	674.7	691.4
55°	545.4	554.6	581.6	613.8	631.6
57.5°	485.6	494.2	524.7	552.3	570.7
60°	428.1	439.1	462.6	490.8	512.1
62.5°	373.0	384.5	404.6	429.3	453.4
65°	319.5	328.2	347.7	372.4	393.7
67.5°	267.8	275.3	294.8	312.1	334.5
70°	215.5	225.3	239.6	256.3	270.7
72.5°	173.6	177.6	189.6	201.7	216.7
75°	128.2	135.1	144.8	151.7	160.3
77.5°	92.0	96.0	101.7	107.5	115.5
80°	61.5	63.2	68.4	69.5	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)