

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: P557241

Luminaire Tested: **FUSL-12-4-LD4-2LO-35-UNV-80-88-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: P557241
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-LD4-2LO-35-UNV-80-88-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC 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

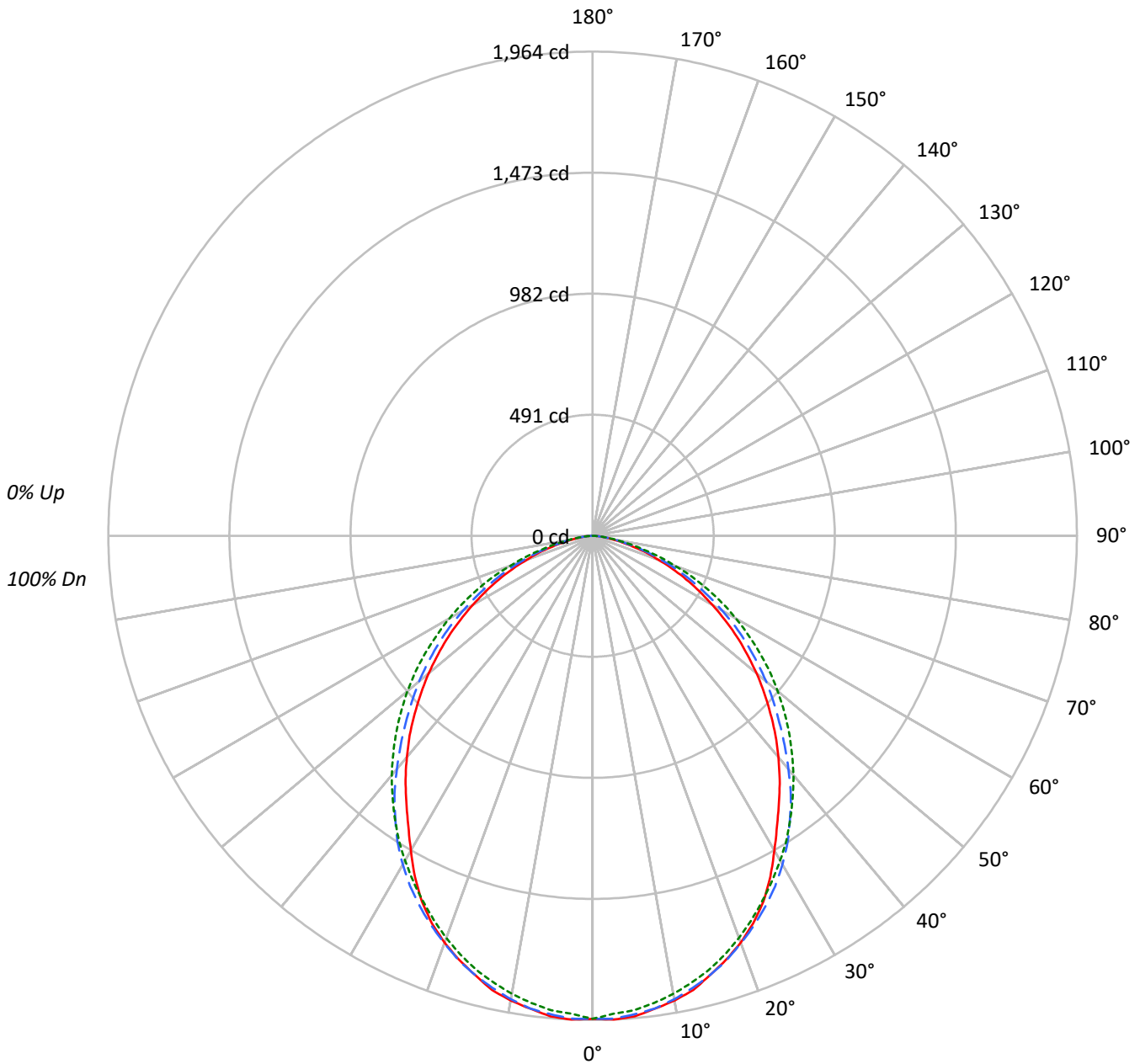
Lumens per Lamp: N/A
Luminaire Lumens: 4530.0 lumens
Efficiency: N/A
Efficacy: 96.8 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 46.8
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°	5272	5272	5272
5°	5286	5264	5219
10°	5230	5216	5156
15°	5137	5137	5078
20°	5028	5035	4970
25°	4863	4923	4845
30°	4579	4785	4726
35°	4327	4586	4594
40°	4117	4339	4452
45°	3881	4076	4285
50°	3633	3841	4102
55°	3351	3574	3880
60°	3018	3261	3609
65°	2665	2899	3283
70°	2220	2469	2789
75°	1745	1972	2183
80°	1247	1389	1539
85°	812	812	766



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	184.5	4.1
10°-20°	518.2	11.4
20°-30°	757.2	16.7
30°-40°	859.6	19.0
40°-50°	829.8	18.3
50°-60°	684.5	15.1
60°-70°	455.8	10.1
70°-80°	204.0	4.5
80°-90°	36.5	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°	1459.9	32.2
0°-40°	2319.5	51.2
0°-60°	3833.7	84.6
0°-90°	4530.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4530.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1959	1959	1959	1959	1959	
5°	1957	1956	1949	1938	1932	185
15°	1844	1848	1844	1836	1823	520
25°	1638	1650	1658	1646	1632	750
35°	1317	1335	1396	1404	1398	825
45°	1020	1037	1071	1120	1126	787
55°	714	726	762	804	827	638
65°	418	430	455	488	516	415
75°	168	177	190	199	210	183
85°	26	26	26	25	25	36
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1959.1	1959.1	1959.1	1959.1	1959.1
2.5°	1964.4	1965.1	1960.6	1948.6	1941.0
5°	1956.9	1956.1	1948.6	1938.0	1932.0
7.5°	1935.0	1936.5	1934.3	1919.2	1910.9
10°	1913.9	1914.7	1908.7	1896.6	1886.9
12.5°	1886.9	1886.1	1877.8	1871.8	1856.0
15°	1844.0	1848.5	1844.0	1835.7	1822.9
17.5°	1802.6	1802.6	1805.6	1791.3	1781.5
20°	1755.9	1758.2	1758.2	1746.9	1735.6
22.5°	1701.7	1708.5	1710.7	1698.7	1685.1
25°	1637.7	1650.5	1658.1	1646.0	1631.7
27.5°	1560.2	1579.8	1602.4	1593.3	1577.5
30°	1473.7	1502.3	1539.9	1532.4	1521.1
32.5°	1391.6	1420.2	1472.2	1469.1	1463.1
35°	1317.1	1335.2	1396.1	1403.7	1398.4
37.5°	1246.4	1262.9	1320.1	1337.4	1332.9
40°	1171.9	1189.9	1235.1	1265.9	1267.4
42.5°	1098.1	1115.4	1152.3	1196.7	1196.7
45°	1019.8	1037.1	1071.0	1119.9	1125.9
47.5°	943.1	961.1	994.2	1043.2	1052.9
50°	867.8	884.3	917.5	964.9	979.9
52.5°	789.5	807.6	839.9	883.6	905.4
55°	714.3	726.3	761.7	803.8	827.1
57.5°	636.0	647.3	687.2	723.3	747.4
60°	560.7	575.0	605.9	642.7	670.6
62.5°	488.5	503.5	529.9	562.2	593.8
65°	418.5	429.8	455.3	487.7	515.6
67.5°	350.7	360.5	386.1	408.7	438.0
70°	282.2	295.0	313.8	335.7	354.5
72.5°	227.3	232.6	248.4	264.2	283.7
75°	167.8	176.9	189.7	198.7	210.0
77.5°	120.4	125.7	133.2	140.7	151.3
80°	80.5	82.8	89.6	91.1	99.3
82.5°	48.9	50.4	51.9	52.7	55.7
85°	26.3	26.3	26.3	24.8	24.8
87.5°	15.1	15.1	12.8	10.5	7.5
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)