

Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: FAIL-SAFE

Report Number: P560179

Luminaire Tested: FSR-12-2-LD4-2HI-35-UNV-80-85-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560179
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-135-5)
Test Lab: INNOVATION CENTER
Issue Date: 7/20/2021
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: FAIL-SAFE
Catalog Number: FSR-12-2-LD4-2HI-35-UNV-80-85-EDD
Description: 1X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR PC ENVIRON
SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3668.0 lumens
Efficiency: N/A
Efficacy: 84.9 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

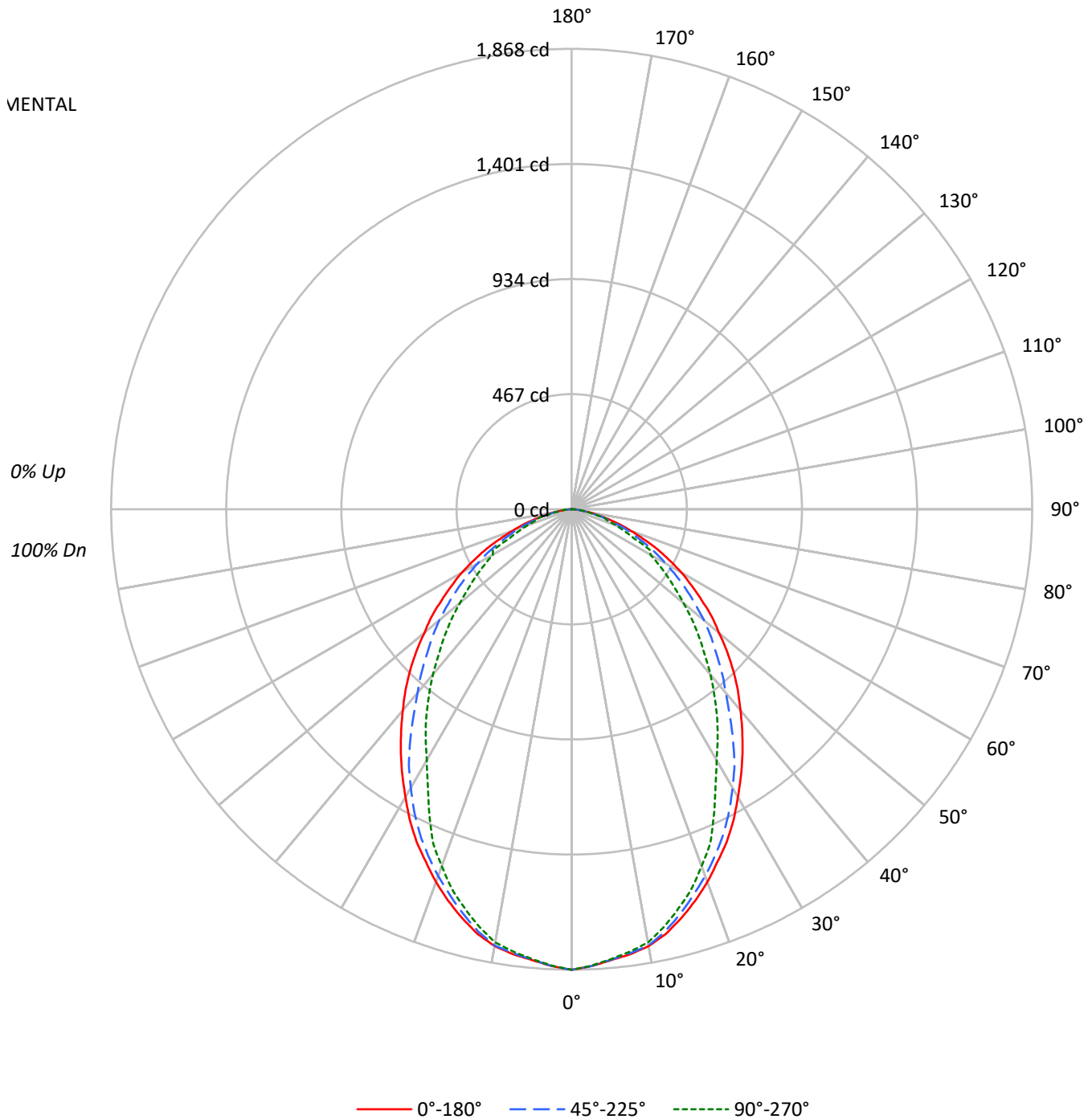
Input Watts (W): 43.2
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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									70									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	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	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87																												
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75																												
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65																												
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56																												
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50																												
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44																												
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40																												
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36																												
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33																												
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30																												

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10056	10056	10056
5°	9919	9908	9896
10°	9833	9821	9751
15°	9568	9472	9339
20°	9216	9068	8821
25°	8838	8646	8106
30°	8377	8108	7303
35°	7933	7493	6755
40°	7482	6829	6146
45°	7053	6314	5557
50°	6529	5860	4955
55°	6040	5310	4438
60°	5534	4743	3976
65°	4869	4154	3521
70°	4011	3637	2991
75°	3190	2784	2920
80°	2142	2008	1875
85°	1334	1599	1865

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 7053 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	173.9	4.7
10°-20°	477.3	13.0
20°-30°	660.8	18.0
30°-40°	704.6	19.2
40°-50°	642.8	17.5
50°-60°	503.6	13.7
60°-70°	328.2	8.9
70°-80°	145.4	4.0
80°-90°	31.2	0.9
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°	1312.1	35.8
0°-40°	2016.7	55.0
0°-60°	3163.1	86.2
0°-90°	3668.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3668.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1868	1868	1868	1868	1868	
5°	1836	1834	1834	1832	1832	174
15°	1717	1717	1700	1683	1676	483
25°	1488	1480	1456	1404	1365	683
35°	1208	1199	1140	1054	1028	755
45°	927	907	830	760	730	714
55°	644	624	566	499	473	577
65°	382	361	326	333	276	377
75°	153	143	134	127	140	164
85°	22	24	26	28	30	30
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1868.4	1868.4	1868.4	1868.4	1868.4
2.5°	1855.5	1855.5	1855.5	1853.3	1853.3
5°	1836.0	1833.9	1833.9	1831.7	1831.7
7.5°	1820.9	1818.7	1816.6	1814.4	1810.1
10°	1799.3	1799.3	1797.1	1786.3	1784.2
12.5°	1764.7	1762.6	1753.9	1738.8	1734.5
15°	1717.2	1717.2	1699.9	1682.7	1676.2
17.5°	1665.4	1663.2	1641.6	1624.3	1615.7
20°	1609.2	1604.9	1583.3	1555.2	1540.1
22.5°	1546.6	1546.6	1520.7	1483.9	1468.8
25°	1488.3	1479.6	1455.9	1404.0	1365.1
27.5°	1421.3	1408.3	1382.4	1309.0	1263.6
30°	1347.9	1341.4	1304.7	1209.6	1175.1
32.5°	1278.7	1267.9	1229.1	1129.7	1101.6
35°	1207.5	1198.8	1140.5	1054.1	1028.2
37.5°	1136.2	1125.4	1051.9	982.8	950.4
40°	1064.9	1051.9	972.0	909.4	874.8
42.5°	997.9	980.7	902.9	835.9	797.1
45°	926.7	907.2	829.5	760.3	730.1
47.5°	855.4	838.1	766.8	695.5	661.0
50°	779.8	764.7	699.9	628.6	591.8
52.5°	717.1	693.4	630.7	559.4	529.2
55°	643.7	624.3	565.9	499.0	473.0
57.5°	576.7	557.3	503.3	440.6	419.0
60°	514.1	486.0	440.6	386.6	369.4
62.5°	445.0	423.4	384.5	339.1	360.7
65°	382.3	360.7	326.2	332.6	276.5
67.5°	313.2	302.4	272.2	241.9	233.3
70°	254.9	241.9	231.1	198.7	190.1
72.5°	203.0	190.1	175.0	157.7	151.2
75°	153.4	142.6	133.9	127.4	140.4
77.5°	105.8	101.5	95.0	88.6	86.4
80°	69.1	67.0	64.8	62.6	60.5
82.5°	41.0	41.0	41.0	41.0	41.0
85°	21.6	23.8	25.9	28.1	30.2
87.5°	13.0	13.0	15.1	17.3	19.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)