

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: P560311

Luminaire Tested: FSR-12-2-LD4-2HI-50-UNV-80-87-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560311
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-50-UNV-80-87-EDD
Description: 1X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR PC ENVIRON
SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3604.0 lumens
Efficiency: N/A
Efficacy: 83.4 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

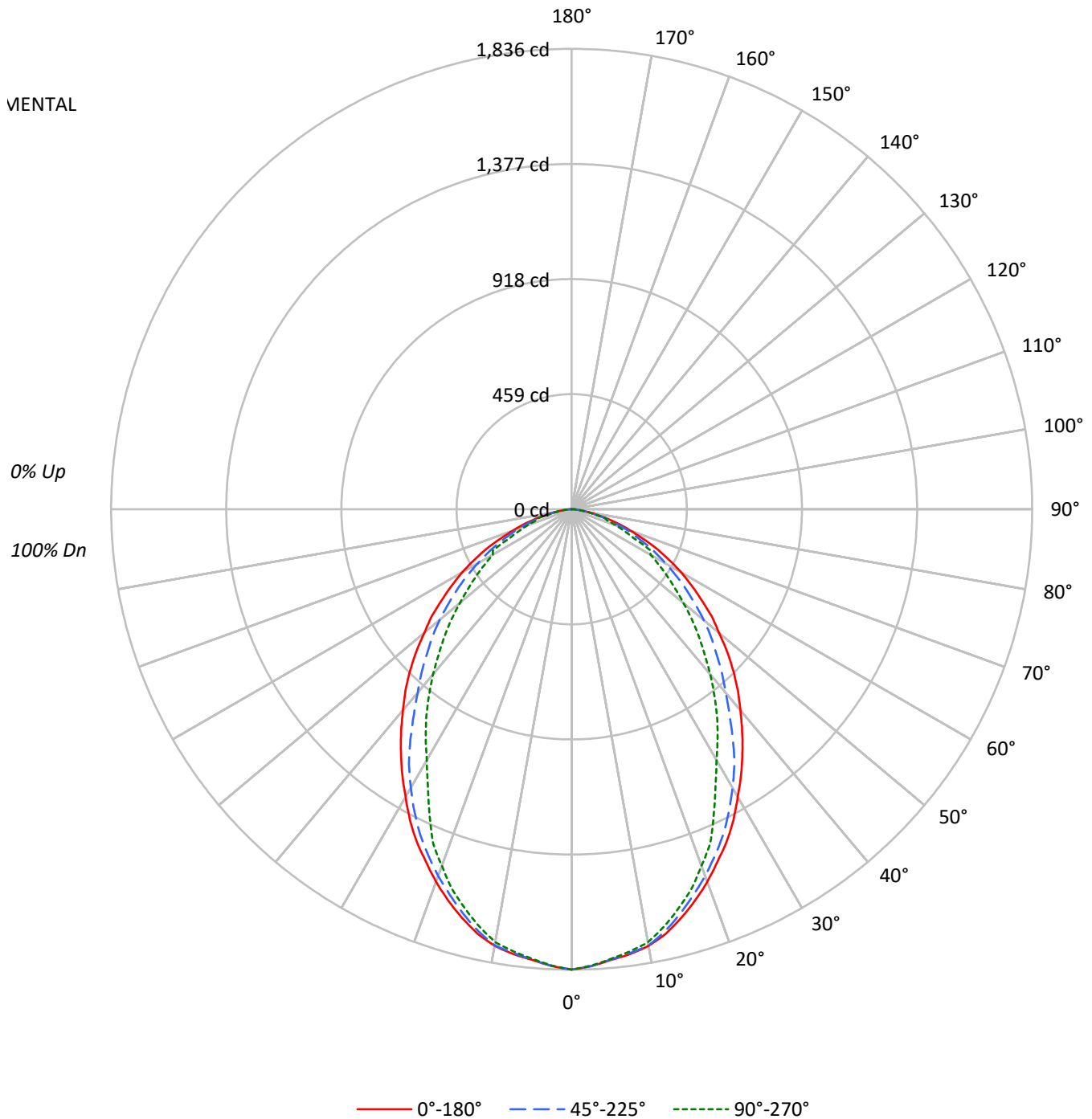
Input Watts (W): 43.2
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				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	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°	9880	9880	9880
5°	9746	9735	9723
10°	9662	9650	9581
15°	9401	9307	9176
20°	9056	8910	8667
25°	8684	8495	7965
30°	8230	7966	7175
35°	7795	7363	6637
40°	7351	6710	6039
45°	6930	6203	5460
50°	6415	5757	4869
55°	5935	5218	4361
60°	5437	4661	3906
65°	4784	4082	3460
70°	3940	3574	2939
75°	3134	2737	2870
80°	2104	1974	1841
85°	1309	1575	1834

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6930 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	170.9	4.7
10°-20°	469.0	13.0
20°-30°	649.3	18.0
30°-40°	692.3	19.2
40°-50°	631.6	17.5
50°-60°	494.8	13.7
60°-70°	322.5	8.9
70°-80°	142.9	4.0
80°-90°	30.7	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°	1289.2	35.8
0°-40°	1981.5	55.0
0°-60°	3108.0	86.2
0°-90°	3604.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3604.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1836	1836	1836	1836	1836	
5°	1804	1802	1802	1800	1800	171
15°	1687	1687	1670	1653	1647	474
25°	1462	1454	1430	1380	1341	671
35°	1186	1178	1121	1036	1010	742
45°	910	891	815	747	717	701
55°	632	613	556	490	465	567
65°	376	354	320	327	272	370
75°	151	140	132	125	138	161
85°	21	23	26	28	30	29
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1835.8	1835.8	1835.8	1835.8	1835.8
2.5°	1823.1	1823.1	1823.1	1821.0	1821.0
5°	1804.0	1801.9	1801.9	1799.7	1799.7
7.5°	1789.1	1787.0	1784.9	1782.8	1778.5
10°	1767.9	1767.9	1765.8	1755.2	1753.1
12.5°	1734.0	1731.8	1723.3	1708.5	1704.2
15°	1687.3	1687.3	1670.3	1653.3	1646.9
17.5°	1636.3	1634.2	1613.0	1596.0	1587.5
20°	1581.1	1576.9	1555.7	1528.1	1513.2
22.5°	1519.6	1519.6	1494.1	1458.1	1443.2
25°	1462.3	1453.8	1430.5	1379.5	1341.3
27.5°	1396.5	1383.8	1358.3	1286.1	1241.6
30°	1324.3	1318.0	1281.9	1188.5	1154.6
32.5°	1256.4	1245.8	1207.6	1110.0	1082.4
35°	1186.4	1177.9	1120.6	1035.7	1010.2
37.5°	1116.4	1105.7	1033.6	965.7	933.8
40°	1046.3	1033.6	955.1	893.5	859.6
42.5°	980.5	963.5	887.1	821.3	783.1
45°	910.5	891.4	815.0	747.1	717.4
47.5°	840.4	823.5	753.4	683.4	649.4
50°	766.2	751.3	687.6	617.6	581.5
52.5°	704.6	681.3	619.7	549.7	520.0
55°	632.5	613.4	556.1	490.3	464.8
57.5°	566.7	547.6	494.5	433.0	411.7
60°	505.1	477.5	433.0	379.9	362.9
62.5°	437.2	416.0	377.8	333.2	354.4
65°	375.7	354.4	320.5	326.8	271.7
67.5°	307.7	297.1	267.4	237.7	229.2
70°	250.4	237.7	227.1	195.3	186.8
72.5°	199.5	186.8	171.9	154.9	148.6
75°	150.7	140.1	131.6	125.2	138.0
77.5°	104.0	99.8	93.4	87.0	84.9
80°	67.9	65.8	63.7	61.5	59.4
82.5°	40.3	40.3	40.3	40.3	40.3
85°	21.2	23.3	25.5	27.6	29.7
87.5°	12.7	12.7	14.9	17.0	19.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)