

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: P560209

Luminaire Tested: FSR-12-2-LD4-2HI-35-UNV-82-84-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560209
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-82-84-EDD
Description: 1X2 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3480.0 lumens
Efficiency: N/A
Efficacy: 80.6 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

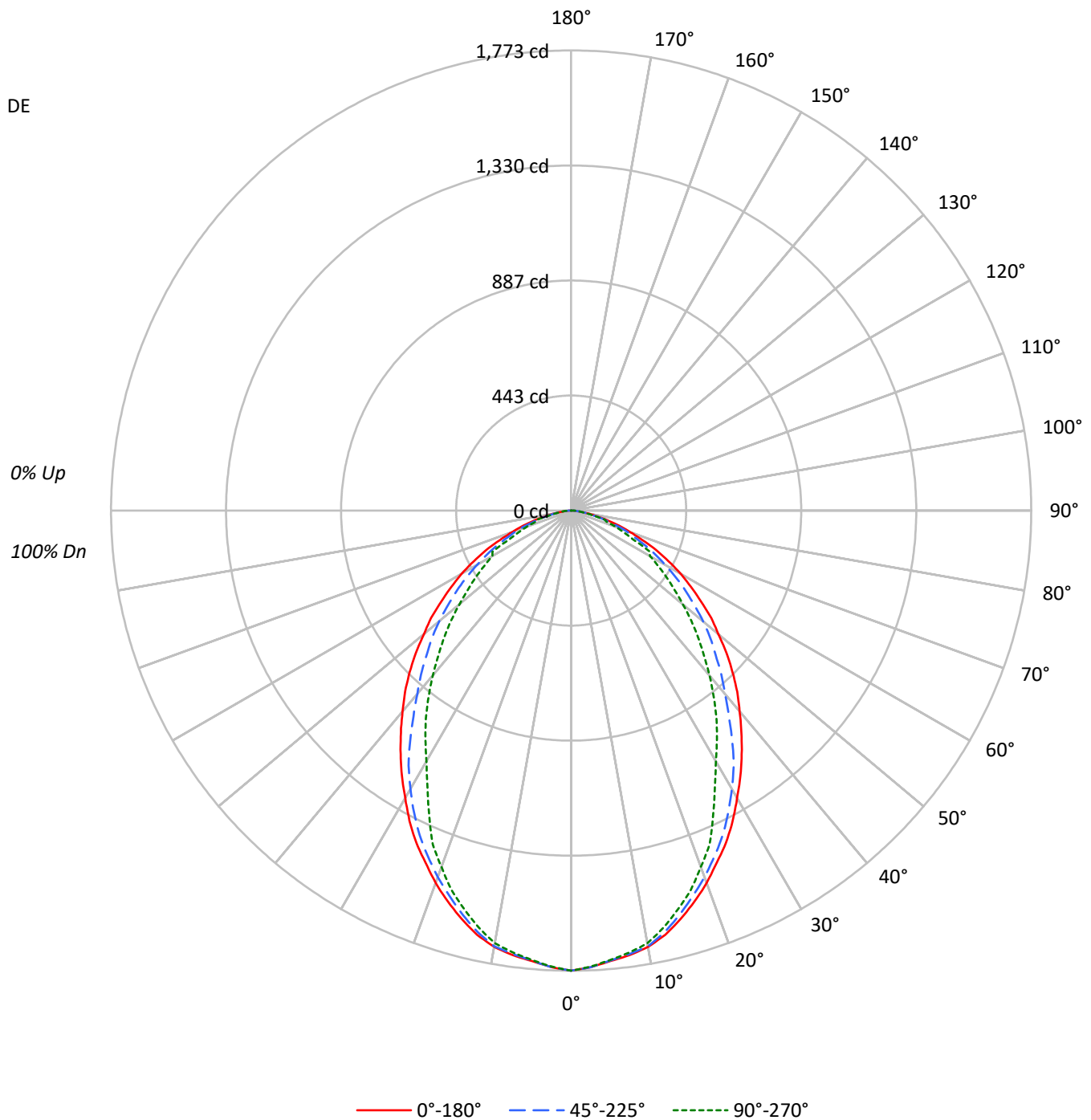
Input Watts (W): 43.2
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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					100			
1	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87					87			
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75					75			
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65					65			
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56					56			
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50					50			
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44					44			
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40					40			
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36					36			
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33					33			
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30					30			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9541	9541	9541
5°	9411	9400	9388
10°	9329	9318	9251
15°	9078	8986	8861
20°	8744	8604	8369
25°	8385	8202	7691
30°	7947	7692	6928
35°	7527	7109	6409
40°	7098	6479	5831
45°	6692	5989	5272
50°	6194	5560	4701
55°	5730	5038	4211
60°	5250	4500	3772
65°	4619	3940	3340
70°	3805	3451	2837
75°	3026	2643	2770
80°	2033	1906	1779
85°	1266	1519	1772

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6692 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	165.0	4.7
10°-20°	452.9	13.0
20°-30°	627.0	18.0
30°-40°	668.5	19.2
40°-50°	609.9	17.5
50°-60°	477.8	13.7
60°-70°	311.4	8.9
70°-80°	138.0	4.0
80°-90°	29.6	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°	1244.8	35.8
0°-40°	1913.3	55.0
0°-60°	3001.0	86.2
0°-90°	3480.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3480.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1773	1773	1773	1773	1773	
5°	1742	1740	1740	1738	1738	165
15°	1629	1629	1613	1596	1590	458
25°	1412	1404	1381	1332	1295	648
35°	1146	1137	1082	1000	976	716
45°	879	861	787	721	693	677
55°	611	592	537	473	449	548
65°	363	342	309	316	262	357
75°	146	135	127	121	133	156
85°	20	22	25	27	29	28
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1772.7	1772.7	1772.7	1772.7	1772.7
2.5°	1760.4	1760.4	1760.4	1758.3	1758.3
5°	1741.9	1739.9	1739.9	1737.8	1737.8
7.5°	1727.6	1725.5	1723.5	1721.4	1717.3
10°	1707.1	1707.1	1705.0	1694.8	1692.7
12.5°	1674.3	1672.2	1664.1	1649.7	1645.6
15°	1629.2	1629.2	1612.8	1596.4	1590.3
17.5°	1580.0	1578.0	1557.5	1541.1	1532.9
20°	1526.7	1522.6	1502.2	1475.5	1461.2
22.5°	1467.3	1467.3	1442.7	1407.9	1393.5
25°	1412.0	1403.8	1381.2	1332.1	1295.2
27.5°	1348.5	1336.2	1311.6	1241.9	1198.9
30°	1278.8	1272.6	1237.8	1147.6	1114.8
32.5°	1213.2	1203.0	1166.1	1071.8	1045.2
35°	1145.6	1137.4	1082.0	1000.1	975.5
37.5°	1077.9	1067.7	998.0	932.4	901.7
40°	1010.3	998.0	922.2	862.8	830.0
42.5°	946.8	930.4	856.6	793.1	756.2
45°	879.2	860.7	786.9	721.4	692.7
47.5°	811.5	795.1	727.5	659.9	627.1
50°	739.8	725.5	664.0	596.4	561.5
52.5°	680.4	657.8	598.4	530.8	502.1
55°	610.7	592.3	536.9	473.4	448.8
57.5°	547.2	528.7	477.5	418.1	397.6
60°	487.7	461.1	418.1	366.8	350.4
62.5°	422.2	401.7	364.8	321.7	342.2
65°	362.7	342.2	309.4	315.6	262.3
67.5°	297.2	286.9	258.2	229.5	221.3
70°	241.8	229.5	219.3	188.5	180.3
72.5°	192.6	180.3	166.0	149.6	143.5
75°	145.5	135.3	127.1	120.9	133.2
77.5°	100.4	96.3	90.2	84.0	82.0
80°	65.6	63.5	61.5	59.4	57.4
82.5°	38.9	38.9	38.9	38.9	38.9
85°	20.5	22.5	24.6	26.6	28.7
87.5°	12.3	12.3	14.3	16.4	18.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)