

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: P560335

Luminaire Tested: FSR-12-2-LD4-2HI-50-UNV-81-97-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560335
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-81-97-EDD
Description: 1X2 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3489.0 lumens
Efficiency: N/A
Efficacy: 80.8 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

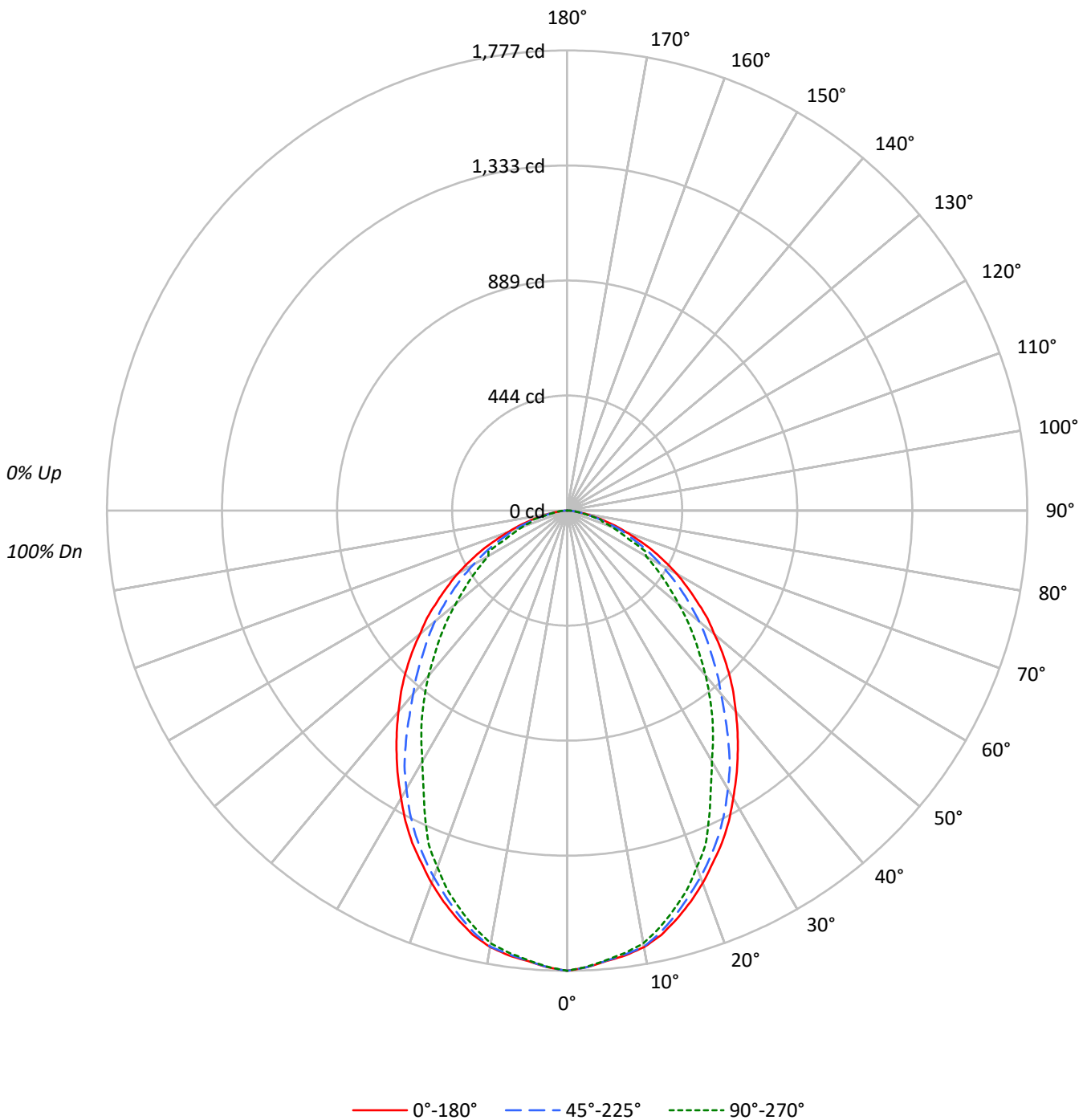
Input Watts (W): 43.2
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	9565	9565	9565
5°	9435	9424	9413
10°	9353	9342	9275
15°	9101	9010	8884
20°	8767	8625	8390
25°	8406	8223	7711
30°	7968	7712	6946
35°	7546	7127	6426
40°	7116	6496	5846
45°	6709	6005	5286
50°	6210	5574	4714
55°	5745	5051	4222
60°	5264	4511	3781
65°	4632	3950	3349
70°	3814	3459	2845
75°	3034	2649	2778
80°	2036	1909	1782
85°	1266	1525	1778

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6709 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	165.4	4.7
10°-20°	454.0	13.0
20°-30°	628.6	18.0
30°-40°	670.2	19.2
40°-50°	611.5	17.5
50°-60°	479.0	13.7
60°-70°	312.2	8.9
70°-80°	138.3	4.0
80°-90°	29.7	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°	1248.0	35.8
0°-40°	1918.3	55.0
0°-60°	3008.8	86.2
0°-90°	3489.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3489.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1777	1777	1777	1777	1777	
5°	1746	1744	1744	1742	1742	166
15°	1633	1633	1617	1601	1594	459
25°	1416	1407	1385	1336	1298	650
35°	1148	1140	1085	1003	978	718
45°	881	863	789	723	694	679
55°	612	594	538	475	450	549
65°	364	343	310	316	263	358
75°	146	136	127	121	134	156
85°	20	23	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°	1777.2	1777.2	1777.2	1777.2	1777.2
2.5°	1764.9	1764.9	1764.9	1762.9	1762.9
5°	1746.4	1744.4	1744.4	1742.3	1742.3
7.5°	1732.0	1730.0	1727.9	1725.9	1721.8
10°	1711.5	1711.5	1709.4	1699.2	1697.1
12.5°	1678.6	1676.6	1668.4	1654.0	1649.9
15°	1633.4	1633.4	1617.0	1600.6	1594.4
17.5°	1584.1	1582.1	1561.5	1545.1	1536.9
20°	1530.7	1526.6	1506.0	1479.3	1464.9
22.5°	1471.1	1471.1	1446.5	1411.5	1397.1
25°	1415.6	1407.4	1384.8	1335.5	1298.5
27.5°	1351.9	1339.6	1315.0	1245.1	1202.0
30°	1282.1	1275.9	1241.0	1150.6	1117.7
32.5°	1216.3	1206.1	1169.1	1074.6	1047.9
35°	1148.5	1140.3	1084.8	1002.7	978.0
37.5°	1080.7	1070.5	1000.6	934.9	904.0
40°	1012.9	1000.6	924.6	865.0	832.1
42.5°	949.2	932.8	858.8	795.1	758.2
45°	881.4	862.9	789.0	723.2	694.5
47.5°	813.6	797.2	729.4	661.6	628.7
50°	741.7	727.3	665.7	597.9	563.0
52.5°	682.1	659.5	600.0	532.1	503.4
55°	612.3	593.8	538.3	474.6	450.0
57.5°	548.6	530.1	478.7	419.1	398.6
60°	489.0	462.3	419.1	367.8	351.3
62.5°	423.3	402.7	365.7	322.6	343.1
65°	363.7	343.1	310.2	316.4	263.0
67.5°	297.9	287.6	258.9	230.1	221.9
70°	242.4	230.1	219.8	189.0	180.8
72.5°	193.1	180.8	166.4	150.0	143.8
75°	145.9	135.6	127.4	121.2	133.6
77.5°	100.7	96.6	90.4	84.2	82.2
80°	65.7	63.7	61.6	59.6	57.5
82.5°	39.0	39.0	39.0	39.0	39.0
85°	20.5	22.6	24.7	26.7	28.8
87.5°	12.3	12.3	14.4	16.4	18.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)