

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: P560219

Luminaire Tested: FSR-12-2-LD4-2HI-35-UNV-82-94-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560219
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-82-94-EDD
Description: 1X2 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3488.0 lumens
Efficiency: N/A
Efficacy: 80.7 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

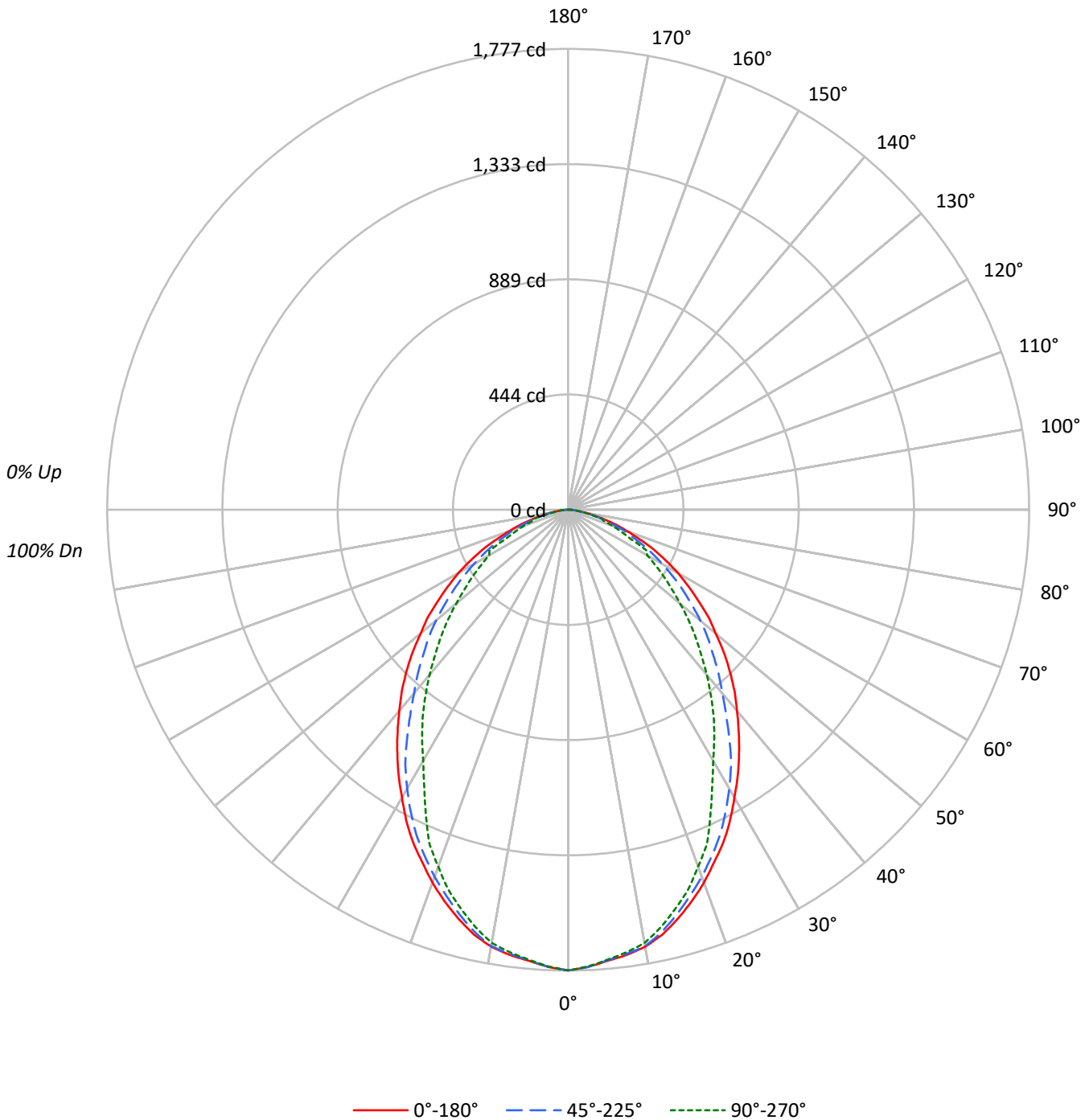
Input Watts (W): 43.2
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	9562	9562	9562
5°	9432	9421	9410
10°	9351	9340	9272
15°	9099	9007	8881
20°	8765	8623	8388
25°	8404	8221	7709
30°	7965	7710	6944
35°	7544	7125	6424
40°	7114	6494	5845
45°	6707	6003	5284
50°	6208	5572	4712
55°	5743	5050	4221
60°	5262	4510	3780
65°	4630	3950	3348
70°	3814	3459	2845
75°	3032	2649	2776
80°	2036	1909	1782
85°	1266	1519	1778

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6707 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	165.4	4.7
10°-20°	453.9	13.0
20°-30°	628.4	18.0
30°-40°	670.1	19.2
40°-50°	611.3	17.5
50°-60°	478.9	13.7
60°-70°	312.1	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°	1247.7	35.8
0°-40°	1917.7	55.0
0°-60°	3007.9	86.2
0°-90°	3488.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3488.0	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	1616	1600	1594	459
25°	1415	1407	1384	1335	1298	650
35°	1148	1140	1084	1002	978	718
45°	881	863	789	723	694	679
55°	612	594	538	474	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°	1776.7	1776.7	1776.7	1776.7	1776.7
2.5°	1764.4	1764.4	1764.4	1762.4	1762.4
5°	1745.9	1743.9	1743.9	1741.8	1741.8
7.5°	1731.6	1729.5	1727.4	1725.4	1721.3
10°	1711.0	1711.0	1709.0	1698.7	1696.6
12.5°	1678.1	1676.1	1667.9	1653.5	1649.4
15°	1633.0	1633.0	1616.5	1600.1	1593.9
17.5°	1583.7	1581.6	1561.1	1544.6	1536.4
20°	1530.3	1526.1	1505.6	1478.9	1464.5
22.5°	1470.7	1470.7	1446.0	1411.1	1396.7
25°	1415.2	1407.0	1384.4	1335.1	1298.2
27.5°	1351.6	1339.2	1314.6	1244.7	1201.6
30°	1281.7	1275.6	1240.6	1150.3	1117.4
32.5°	1216.0	1205.7	1168.7	1074.3	1047.6
35°	1148.2	1140.0	1084.5	1002.4	977.7
37.5°	1080.4	1070.2	1000.3	934.6	903.8
40°	1012.6	1000.3	924.3	864.7	831.9
42.5°	949.0	932.5	858.6	794.9	757.9
45°	881.2	862.7	788.7	723.0	694.3
47.5°	813.4	797.0	729.2	661.4	628.5
50°	741.5	727.1	665.5	597.7	562.8
52.5°	681.9	659.3	599.8	532.0	503.2
55°	612.1	593.6	538.2	474.5	449.8
57.5°	548.4	529.9	478.6	419.0	398.5
60°	488.9	462.2	419.0	367.7	351.2
62.5°	423.1	402.6	365.6	322.5	343.0
65°	363.6	343.0	310.2	316.3	262.9
67.5°	297.8	287.6	258.8	230.1	221.8
70°	242.4	230.1	219.8	189.0	180.8
72.5°	193.1	180.8	166.4	149.9	143.8
75°	145.8	135.6	127.4	121.2	133.5
77.5°	100.6	96.5	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	24.6	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)