

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: P558746

Luminaire Tested: FSR-12-1-LD4-1LO-40-UNV-82-94-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P558746
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-12-1-LD4-1LO-40-UNV-82-94-EDD-90
Description: 1X1 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 465.0 lumens
Efficiency: N/A
Efficacy: 80.2 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

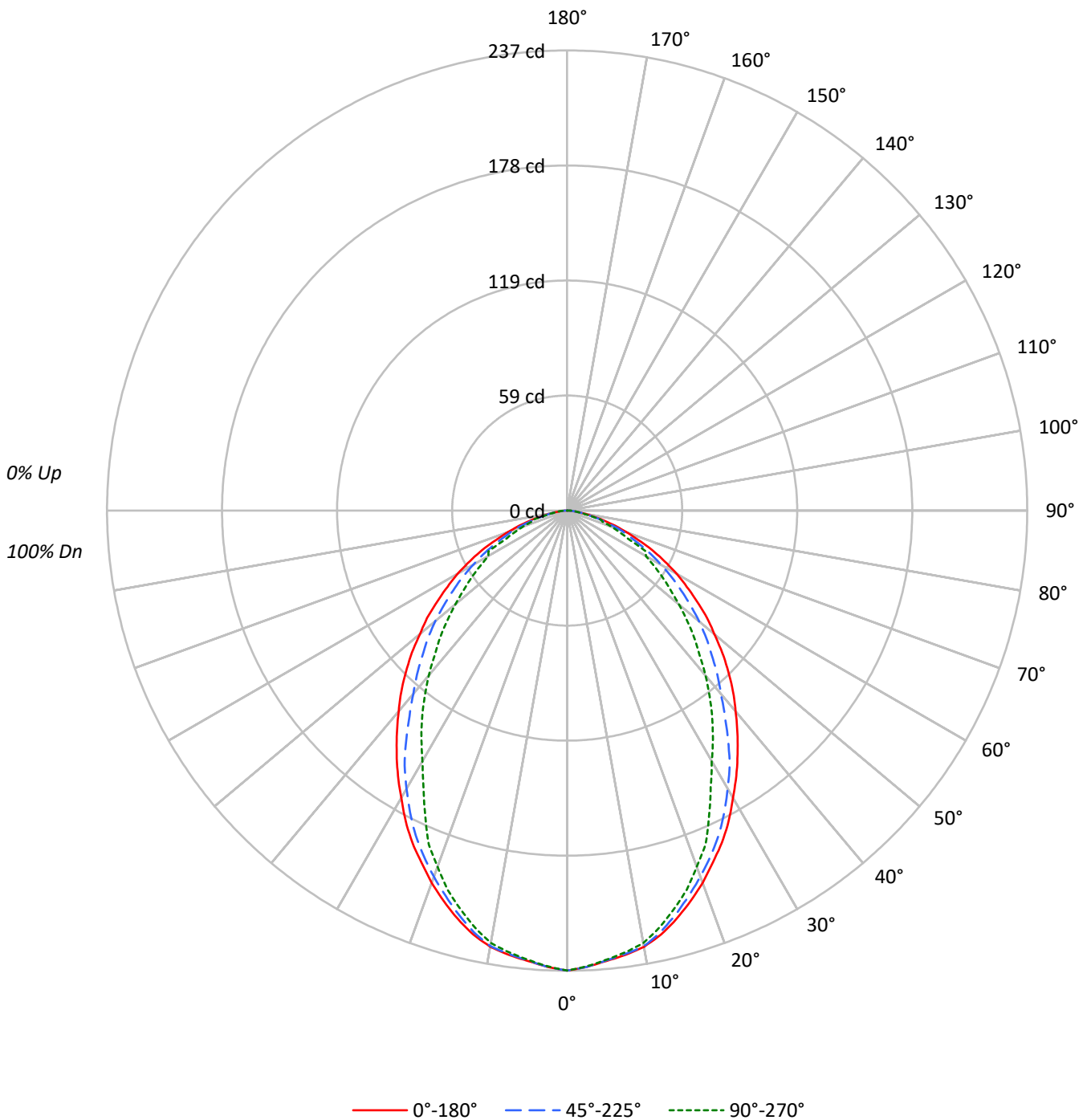
Input Watts (W): 5.8
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	2550	2550	2550
5°	2515	2512	2509
10°	2493	2490	2472
15°	2426	2401	2368
20°	2337	2299	2236
25°	2241	2192	2056
30°	2124	2056	1852
35°	2012	1900	1712
40°	1897	1731	1558
45°	1789	1601	1410
50°	1656	1485	1256
55°	1531	1346	1126
60°	1404	1203	1008
65°	1235	1052	894
70°	1017	922	758
75°	807	707	740
80°	545	508	477
85°	333	408	469

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1789 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	22.0	4.7
10°-20°	60.5	13.0
20°-30°	83.8	18.0
30°-40°	89.3	19.2
40°-50°	81.5	17.5
50°-60°	63.8	13.7
60°-70°	41.6	8.9
70°-80°	18.4	4.0
80°-90°	4.0	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°	166.3	35.8
0°-40°	255.7	55.0
0°-60°	401.0	86.2
0°-90°	465.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	465.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	237	237	237	237	237	
5°	233	232	232	232	232	22
15°	218	218	216	213	212	61
25°	189	188	185	178	173	87
35°	153	152	145	134	130	96
45°	118	115	105	96	93	90
55°	82	79	72	63	60	73
65°	48	46	41	42	35	48
75°	19	18	17	16	18	21
85°	3	3	3	4	4	4
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	236.9	236.9	236.9	236.9	236.9
2.5°	235.2	235.2	235.2	234.9	234.9
5°	232.8	232.5	232.5	232.2	232.2
7.5°	230.8	230.6	230.3	230.0	229.5
10°	228.1	228.1	227.8	226.5	226.2
12.5°	223.7	223.4	222.4	220.4	219.9
15°	217.7	217.7	215.5	213.3	212.5
17.5°	211.1	210.9	208.1	205.9	204.8
20°	204.0	203.5	200.7	197.2	195.2
22.5°	196.1	196.1	192.8	188.1	186.2
25°	188.7	187.6	184.6	178.0	173.1
27.5°	180.2	178.5	175.3	165.9	160.2
30°	170.9	170.0	165.4	153.3	149.0
32.5°	162.1	160.7	155.8	143.2	139.7
35°	153.1	152.0	144.6	133.6	130.3
37.5°	144.0	142.7	133.4	124.6	120.5
40°	135.0	133.4	123.2	115.3	110.9
42.5°	126.5	124.3	114.5	106.0	101.0
45°	117.5	115.0	105.2	96.4	92.6
47.5°	108.4	106.2	97.2	88.2	83.8
50°	98.9	96.9	88.7	79.7	75.0
52.5°	90.9	87.9	80.0	70.9	67.1
55°	81.6	79.1	71.7	63.3	60.0
57.5°	73.1	70.6	63.8	55.9	53.1
60°	65.2	61.6	55.9	49.0	46.8
62.5°	56.4	53.7	48.7	43.0	45.7
65°	48.5	45.7	41.3	42.2	35.1
67.5°	39.7	38.3	34.5	30.7	29.6
70°	32.3	30.7	29.3	25.2	24.1
72.5°	25.7	24.1	22.2	20.0	19.2
75°	19.4	18.1	17.0	16.2	17.8
77.5°	13.4	12.9	12.0	11.2	11.0
80°	8.8	8.5	8.2	7.9	7.7
82.5°	5.2	5.2	5.2	5.2	5.2
85°	2.7	3.0	3.3	3.6	3.8
87.5°	1.6	1.6	1.9	2.2	2.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)