

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: P558646

Luminaire Tested: FSR-12-1-LD4-1LO-35-UNV-80-87-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P558646
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-35-UNV-80-87-EDD-90
Description: 1X1 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR PC ENVIRON
SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 461.0 lumens
Efficiency: N/A
Efficacy: 79.5 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

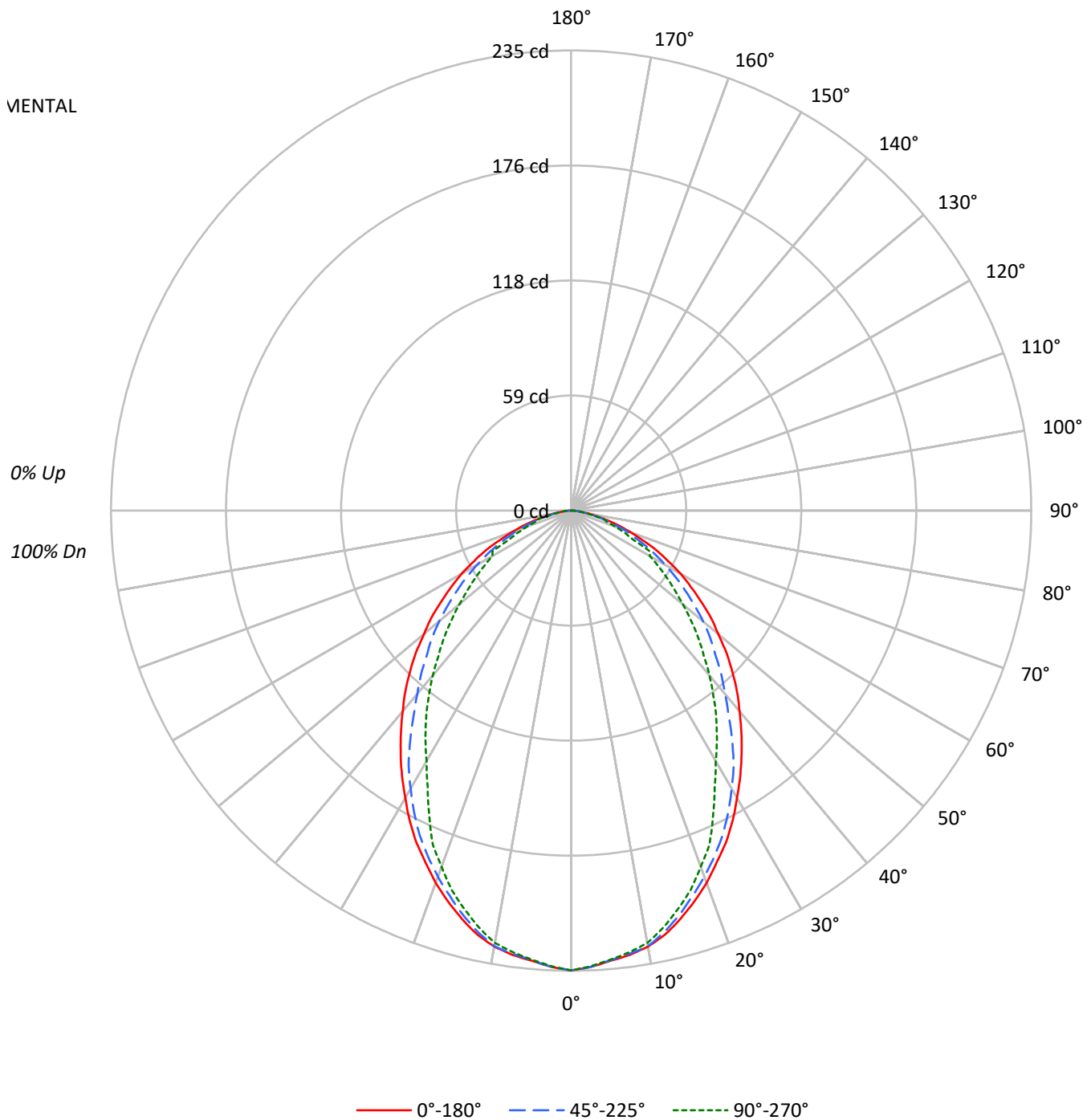
Input Watts (W): 5.8
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	2527	2527	2527
5°	2494	2491	2487
10°	2471	2469	2450
15°	2405	2381	2348
20°	2317	2279	2218
25°	2221	2173	2038
30°	2105	2038	1836
35°	1995	1883	1698
40°	1880	1717	1544
45°	1773	1586	1397
50°	1641	1474	1246
55°	1518	1334	1117
60°	1391	1193	999
65°	1225	1044	884
70°	1007	913	752
75°	803	699	732
80°	539	502	471
85°	333	408	469

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1773 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	21.9	4.7
10°-20°	60.0	13.0
20°-30°	83.1	18.0
30°-40°	88.6	19.2
40°-50°	80.8	17.5
50°-60°	63.3	13.7
60°-70°	41.2	8.9
70°-80°	18.3	4.0
80°-90°	3.9	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°	164.9	35.8
0°-40°	253.5	55.0
0°-60°	397.6	86.2
0°-90°	461.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	461.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	235	235	235	235	235	
5°	231	230	230	230	230	22
15°	216	216	214	212	211	61
25°	187	186	183	176	172	86
35°	152	151	143	132	129	95
45°	116	114	104	96	92	90
55°	81	78	71	63	60	73
65°	48	45	41	42	35	47
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°	234.8	234.8	234.8	234.8	234.8
2.5°	233.2	233.2	233.2	232.9	232.9
5°	230.8	230.5	230.5	230.2	230.2
7.5°	228.9	228.6	228.3	228.0	227.5
10°	226.1	226.1	225.9	224.5	224.2
12.5°	221.8	221.5	220.4	218.5	218.0
15°	215.8	215.8	213.7	211.5	210.7
17.5°	209.3	209.0	206.3	204.2	203.1
20°	202.3	201.7	199.0	195.5	193.6
22.5°	194.4	194.4	191.1	186.5	184.6
25°	187.0	186.0	183.0	176.5	171.6
27.5°	178.6	177.0	173.7	164.5	158.8
30°	169.4	168.6	164.0	152.0	147.7
32.5°	160.7	159.4	154.5	142.0	138.5
35°	151.8	150.7	143.3	132.5	129.2
37.5°	142.8	141.4	132.2	123.5	119.4
40°	133.8	132.2	122.2	114.3	109.9
42.5°	125.4	123.3	113.5	105.1	100.2
45°	116.5	114.0	104.2	95.6	91.8
47.5°	107.5	105.3	96.4	87.4	83.1
50°	98.0	96.1	88.0	79.0	74.4
52.5°	90.1	87.1	79.3	70.3	66.5
55°	80.9	78.5	71.1	62.7	59.5
57.5°	72.5	70.0	63.3	55.4	52.7
60°	64.6	61.1	55.4	48.6	46.4
62.5°	55.9	53.2	48.3	42.6	45.3
65°	48.1	45.3	41.0	41.8	34.7
67.5°	39.4	38.0	34.2	30.4	29.3
70°	32.0	30.4	29.0	25.0	23.9
72.5°	25.5	23.9	22.0	19.8	19.0
75°	19.3	17.9	16.8	16.0	17.6
77.5°	13.3	12.8	11.9	11.1	10.9
80°	8.7	8.4	8.1	7.9	7.6
82.5°	5.2	5.2	5.2	5.2	5.2
85°	2.7	3.0	3.3	3.5	3.8
87.5°	1.6	1.6	1.9	2.2	2.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)