

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: P558476

Luminaire Tested: FSR-12-1-LD4-1HI-35-UNV-81-96-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P558476
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-LD4-1HI-35-UNV-81-96-EDD-90
Description: 1X1 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 760.0 lumens
Efficiency: N/A
Efficacy: 70.4 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

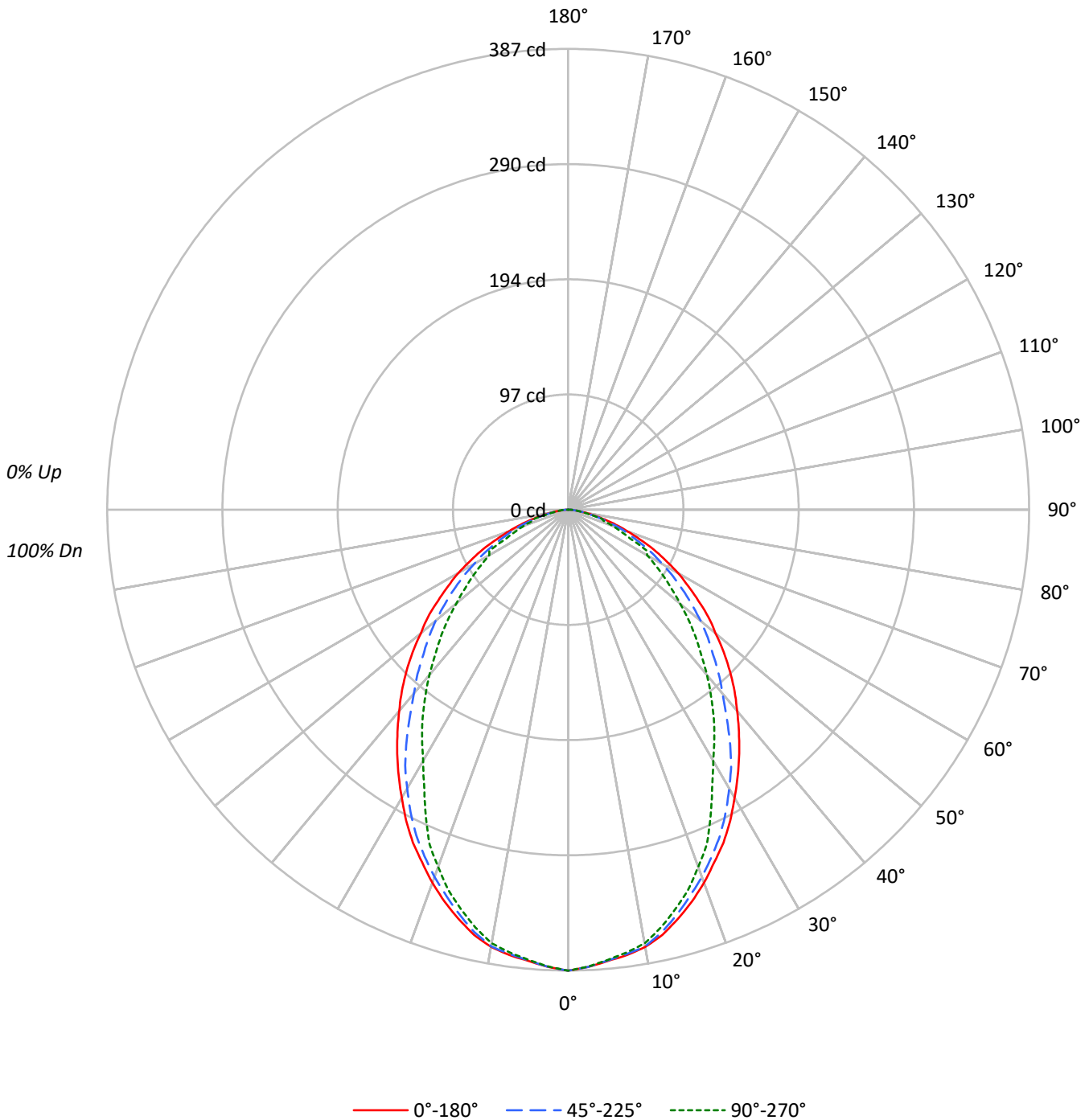
Input Watts (W): 10.8
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	4167	4167	4167
5°	4110	4106	4101
10°	4075	4070	4041
15°	3965	3925	3870
20°	3819	3758	3655
25°	3663	3583	3360
30°	3471	3360	3026
35°	3288	3105	2799
40°	3100	2830	2547
45°	2923	2617	2303
50°	2706	2428	2053
55°	2503	2201	1839
60°	2293	1965	1647
65°	2017	1722	1459
70°	1662	1507	1240
75°	1323	1152	1210
80°	886	831	775
85°	556	667	778

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2923 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	36.0	4.7
10°-20°	98.9	13.0
20°-30°	136.9	18.0
30°-40°	146.0	19.2
40°-50°	133.2	17.5
50°-60°	104.3	13.7
60°-70°	68.0	8.9
70°-80°	30.1	4.0
80°-90°	6.5	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°	271.9	35.8
0°-40°	417.9	55.0
0°-60°	655.4	86.2
0°-90°	760.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	760.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	387	387	387	387	387	
5°	380	380	380	380	380	36
15°	356	356	352	349	347	100
25°	308	307	302	291	283	142
35°	250	248	236	218	213	156
45°	192	188	172	158	151	148
55°	133	129	117	103	98	120
65°	79	75	68	69	57	78
75°	32	30	28	26	29	34
85°	4	5	5	6	6	6
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	387.1	387.1	387.1	387.1	387.1
2.5°	384.4	384.4	384.4	384.0	384.0
5°	380.4	380.0	380.0	379.5	379.5
7.5°	377.3	376.8	376.4	375.9	375.0
10°	372.8	372.8	372.4	370.1	369.7
12.5°	365.7	365.2	363.4	360.3	359.4
15°	355.8	355.8	352.2	348.6	347.3
17.5°	345.1	344.6	340.1	336.6	334.8
20°	333.4	332.5	328.1	322.2	319.1
22.5°	320.4	320.4	315.1	307.5	304.3
25°	308.4	306.6	301.7	290.9	282.9
27.5°	294.5	291.8	286.4	271.2	261.8
30°	279.3	277.9	270.3	250.6	243.5
32.5°	265.0	262.7	254.7	234.1	228.3
35°	250.2	248.4	236.3	218.4	213.0
37.5°	235.4	233.2	218.0	203.6	196.9
40°	220.6	218.0	201.4	188.4	181.3
42.5°	206.8	203.2	187.1	173.2	165.1
45°	192.0	188.0	171.9	157.5	151.3
47.5°	177.2	173.7	158.9	144.1	137.0
50°	161.6	158.4	145.0	130.2	122.6
52.5°	148.6	143.7	130.7	115.9	109.7
55°	133.4	129.3	117.3	103.4	98.0
57.5°	119.5	115.5	104.3	91.3	86.8
60°	106.5	100.7	91.3	80.1	76.5
62.5°	92.2	87.7	79.7	70.3	74.7
65°	79.2	74.7	67.6	68.9	57.3
67.5°	64.9	62.7	56.4	50.1	48.3
70°	52.8	50.1	47.9	41.2	39.4
72.5°	42.1	39.4	36.3	32.7	31.3
75°	31.8	29.5	27.7	26.4	29.1
77.5°	21.9	21.0	19.7	18.3	17.9
80°	14.3	13.9	13.4	13.0	12.5
82.5°	8.5	8.5	8.5	8.5	8.5
85°	4.5	4.9	5.4	5.8	6.3
87.5°	2.7	2.7	3.1	3.6	4.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)