

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: P558468

Luminaire Tested: FSR-12-1-LD4-1HI-35-UNV-81-86-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P558468
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-81-86-EDD-90
Description: 1X1 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 743.0 lumens
Efficiency: N/A
Efficacy: 68.8 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

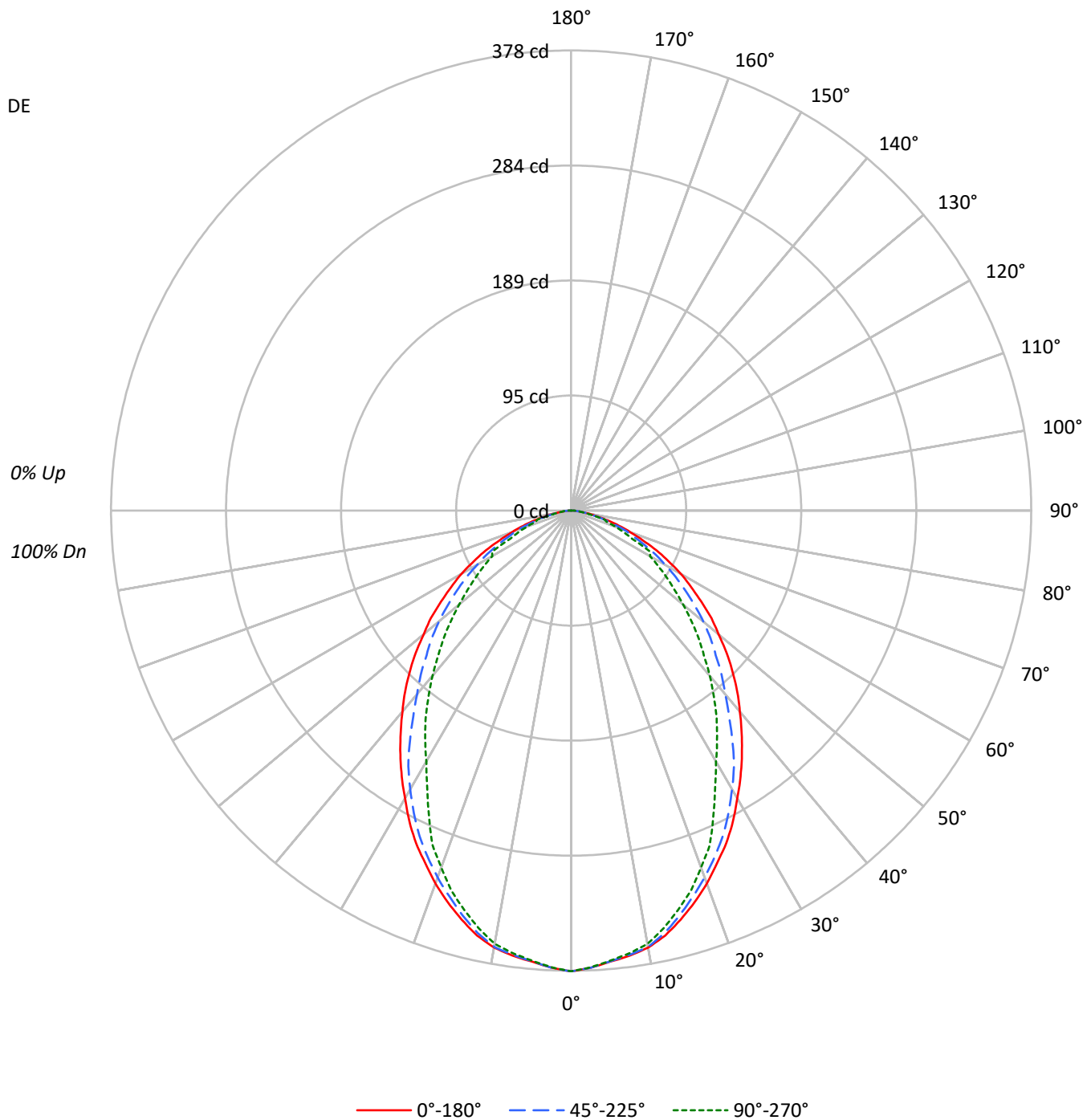
Input Watts (W): 10.8
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	4074	4074	4074
5°	4018	4014	4009
10°	3984	3979	3950
15°	3876	3837	3783
20°	3734	3674	3574
25°	3581	3502	3284
30°	3393	3285	2958
35°	3214	3035	2737
40°	3031	2767	2490
45°	2857	2557	2251
50°	2646	2375	2008
55°	2447	2151	1798
60°	2241	1922	1610
65°	1971	1684	1426
70°	1624	1473	1212
75°	1293	1127	1181
80°	868	812	762
85°	543	655	753

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2857 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	35.2	4.7
10°-20°	96.7	13.0
20°-30°	133.9	18.0
30°-40°	142.7	19.2
40°-50°	130.2	17.5
50°-60°	102.0	13.7
60°-70°	66.5	8.9
70°-80°	29.5	4.0
80°-90°	6.3	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°	265.8	35.8
0°-40°	408.5	55.0
0°-60°	640.7	86.2
0°-90°	743.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	743.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	378	378	378	378	378	
5°	372	372	372	371	371	35
15°	348	348	344	341	340	98
25°	302	300	295	284	276	138
35°	245	243	231	214	208	153
45°	188	184	168	154	148	145
55°	130	126	115	101	96	117
65°	77	73	66	67	56	76
75°	31	29	27	26	28	33
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°	378.5	378.5	378.5	378.5	378.5
2.5°	375.8	375.8	375.8	375.4	375.4
5°	371.9	371.5	371.5	371.0	371.0
7.5°	368.8	368.4	368.0	367.5	366.7
10°	364.5	364.5	364.0	361.8	361.4
12.5°	357.5	357.0	355.3	352.2	351.3
15°	347.8	347.8	344.3	340.8	339.5
17.5°	337.3	336.9	332.5	329.0	327.3
20°	326.0	325.1	320.7	315.0	312.0
22.5°	313.3	313.3	308.0	300.6	297.5
25°	301.5	299.7	294.9	284.4	276.5
27.5°	287.9	285.3	280.0	265.2	256.0
30°	273.0	271.7	264.3	245.0	238.0
32.5°	259.0	256.8	249.0	228.8	223.1
35°	244.6	242.8	231.0	213.5	208.3
37.5°	230.1	228.0	213.1	199.1	192.5
40°	215.7	213.1	196.9	184.2	177.2
42.5°	202.1	198.6	182.9	169.3	161.5
45°	187.7	183.8	168.0	154.0	147.9
47.5°	173.3	169.8	155.3	140.9	133.9
50°	158.0	154.9	141.8	127.3	119.9
52.5°	145.3	140.5	127.8	113.3	107.2
55°	130.4	126.4	114.6	101.1	95.8
57.5°	116.8	112.9	101.9	89.3	84.9
60°	104.1	98.4	89.3	78.3	74.8
62.5°	90.1	85.8	77.9	68.7	73.1
65°	77.4	73.1	66.1	67.4	56.0
67.5°	63.4	61.3	55.1	49.0	47.3
70°	51.6	49.0	46.8	40.3	38.5
72.5°	41.1	38.5	35.4	31.9	30.6
75°	31.1	28.9	27.1	25.8	28.4
77.5°	21.4	20.6	19.3	17.9	17.5
80°	14.0	13.6	13.1	12.7	12.3
82.5°	8.3	8.3	8.3	8.3	8.3
85°	4.4	4.8	5.3	5.7	6.1
87.5°	2.6	2.6	3.1	3.5	3.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)