

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: P558544

Luminaire Tested: FSR-12-1-LD4-1HI-40-UNV-82-84-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P558544
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-40-UNV-82-84-EDD-90
Description: 1X1 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 762.0 lumens
Efficiency: N/A
Efficacy: 70.6 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

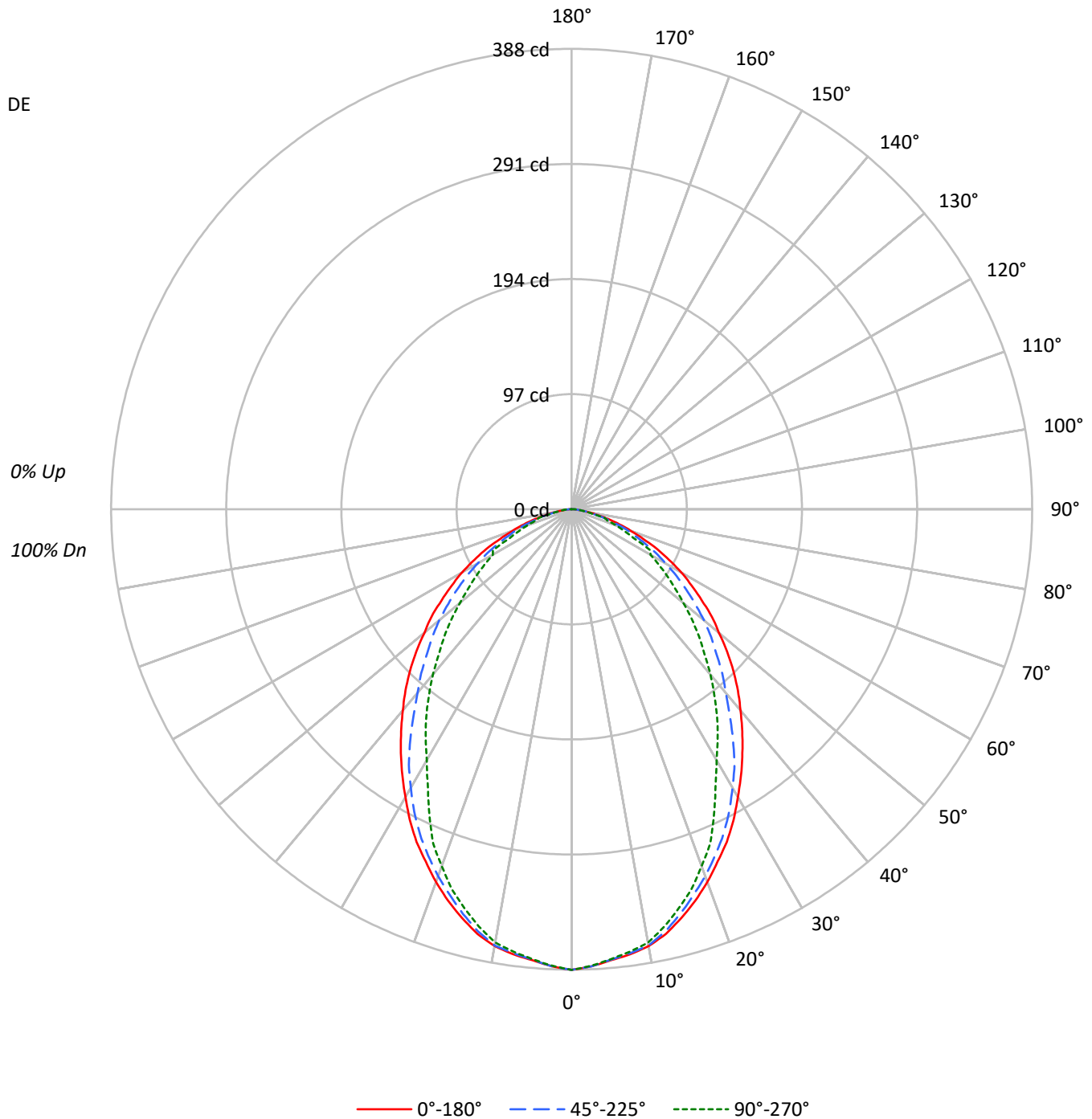
Input Watts (W): 10.8
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	4179	4179	4179
5°	4121	4117	4111
10°	4086	4080	4052
15°	3975	3936	3880
20°	3829	3767	3664
25°	3672	3592	3368
30°	3480	3368	3034
35°	3296	3113	2807
40°	3108	2837	2553
45°	2930	2623	2309
50°	2713	2435	2060
55°	2509	2207	1845
60°	2299	1970	1651
65°	2022	1727	1462
70°	1668	1511	1243
75°	1327	1156	1214
80°	893	837	781
85°	556	667	778

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2930 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	36.1	4.7
10°-20°	99.2	13.0
20°-30°	137.3	18.0
30°-40°	146.4	19.2
40°-50°	133.5	17.5
50°-60°	104.6	13.7
60°-70°	68.2	8.9
70°-80°	30.2	4.0
80°-90°	6.5	0.8
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°	272.6	35.8
0°-40°	418.9	55.0
0°-60°	657.1	86.2
0°-90°	762.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	762.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	388	388	388	388	388	
5°	381	381	381	380	380	36
15°	357	357	353	350	348	100
25°	309	307	302	292	284	142
35°	251	249	237	219	214	157
45°	192	188	172	158	152	148
55°	134	130	118	104	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°	388.2	388.2	388.2	388.2	388.2
2.5°	385.5	385.5	385.5	385.0	385.0
5°	381.4	381.0	381.0	380.5	380.5
7.5°	378.3	377.8	377.4	376.9	376.0
10°	373.8	373.8	373.3	371.1	370.7
12.5°	366.6	366.2	364.4	361.2	360.3
15°	356.7	356.7	353.2	349.6	348.2
17.5°	346.0	345.5	341.0	337.4	335.7
20°	334.3	333.4	328.9	323.1	319.9
22.5°	321.3	321.3	315.9	308.3	305.1
25°	309.2	307.4	302.4	291.7	283.6
27.5°	295.3	292.6	287.2	271.9	262.5
30°	280.0	278.7	271.0	251.3	244.1
32.5°	265.6	263.4	255.3	234.7	228.9
35°	250.8	249.0	236.9	219.0	213.6
37.5°	236.0	233.8	218.5	204.2	197.4
40°	221.2	218.5	201.9	188.9	181.7
42.5°	207.3	203.7	187.6	173.7	165.6
45°	192.5	188.5	172.3	158.0	151.7
47.5°	177.7	174.1	159.3	144.5	137.3
50°	162.0	158.9	145.4	130.6	123.0
52.5°	149.0	144.0	131.0	116.2	109.9
55°	133.7	129.7	117.6	103.7	98.3
57.5°	119.8	115.8	104.6	91.5	87.1
60°	106.8	101.0	91.5	80.3	76.7
62.5°	92.4	88.0	79.9	70.5	74.9
65°	79.4	74.9	67.8	69.1	57.4
67.5°	65.1	62.8	56.5	50.3	48.5
70°	53.0	50.3	48.0	41.3	39.5
72.5°	42.2	39.5	36.3	32.8	31.4
75°	31.9	29.6	27.8	26.5	29.2
77.5°	22.0	21.1	19.7	18.4	17.9
80°	14.4	13.9	13.5	13.0	12.6
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)