

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: P559510

Luminaire Tested: FSR-12-1-LD4-2STD-40-UNV-82-87-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559510
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-LD4-2STD-40-UNV-82-87-EDD-90
Description: 1X1 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1165.0 lumens
Efficiency: N/A
Efficacy: 70.2 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

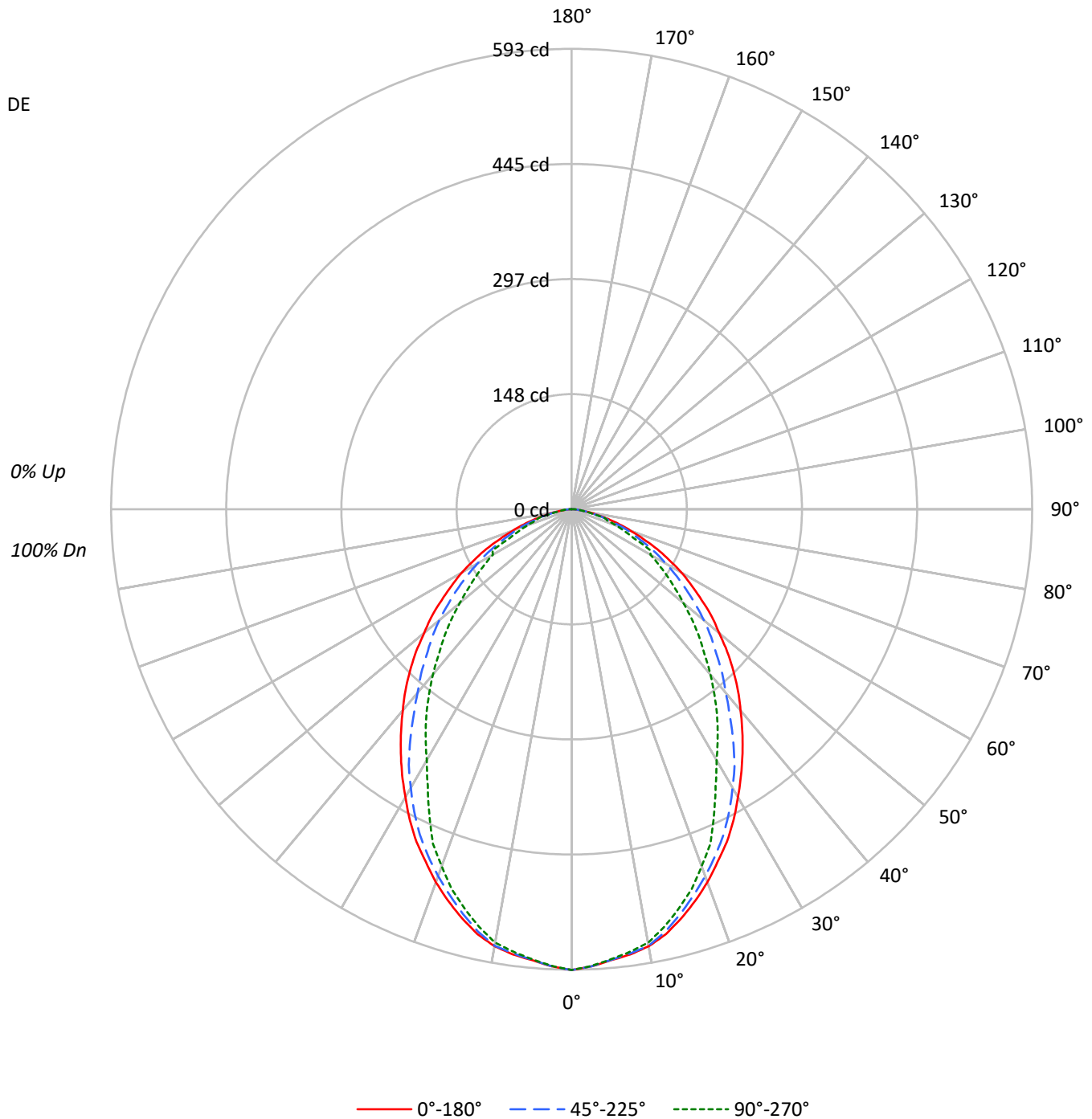
Input Watts (W): 16.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	6387	6387	6387
5°	6300	6294	6286
10°	6246	6239	6194
15°	6078	6016	5933
20°	5855	5761	5604
25°	5614	5492	5150
30°	5321	5151	4639
35°	5039	4759	4292
40°	4752	4338	3905
45°	4480	4010	3530
50°	4148	3723	3148
55°	3836	3372	2819
60°	3515	3014	2525
65°	3092	2639	2236
70°	2549	2310	1901
75°	2025	1768	1855
80°	1364	1277	1190
85°	852	1013	1186

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4480 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	55.2	4.7
10°-20°	151.6	13.0
20°-30°	209.9	18.0
30°-40°	223.8	19.2
40°-50°	204.2	17.5
50°-60°	160.0	13.7
60°-70°	104.2	8.9
70°-80°	46.2	4.0
80°-90°	9.9	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°	416.7	35.8
0°-40°	640.5	55.0
0°-60°	1004.7	86.2
0°-90°	1165.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1165.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	593	593	593	593	593	
5°	583	582	582	582	582	55
15°	545	545	540	534	532	153
25°	473	470	462	446	434	217
35°	384	381	362	335	327	240
45°	294	288	263	242	232	227
55°	204	198	180	158	150	183
65°	121	115	104	106	88	120
75°	49	45	42	40	45	52
85°	7	8	8	9	10	10
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	593.4	593.4	593.4	593.4	593.4
2.5°	589.3	589.3	589.3	588.6	588.6
5°	583.1	582.5	582.5	581.8	581.8
7.5°	578.3	577.7	577.0	576.3	574.9
10°	571.5	571.5	570.8	567.4	566.7
12.5°	560.5	559.8	557.1	552.3	550.9
15°	545.4	545.4	539.9	534.4	532.4
17.5°	528.9	528.3	521.4	515.9	513.2
20°	511.1	509.7	502.9	494.0	489.2
22.5°	491.2	491.2	483.0	471.3	466.5
25°	472.7	469.9	462.4	445.9	433.6
27.5°	451.4	447.3	439.1	415.7	401.3
30°	428.1	426.0	414.4	384.2	373.2
32.5°	406.1	402.7	390.4	358.8	349.9
35°	383.5	380.8	362.2	334.8	326.6
37.5°	360.9	357.4	334.1	312.2	301.9
40°	338.2	334.1	308.7	288.8	277.9
42.5°	317.0	311.5	286.8	265.5	253.2
45°	294.3	288.1	263.4	241.5	231.9
47.5°	271.7	266.2	243.5	220.9	209.9
50°	247.7	242.9	222.3	199.6	188.0
52.5°	227.8	220.2	200.3	177.7	168.1
55°	204.4	198.3	179.7	158.5	150.2
57.5°	183.2	177.0	159.9	140.0	133.1
60°	163.3	154.4	140.0	122.8	117.3
62.5°	141.3	134.5	122.1	107.7	114.6
65°	121.4	114.6	103.6	105.7	87.8
67.5°	99.5	96.0	86.4	76.8	74.1
70°	81.0	76.8	73.4	63.1	60.4
72.5°	64.5	60.4	55.6	50.1	48.0
75°	48.7	45.3	42.5	40.5	44.6
77.5°	33.6	32.2	30.2	28.1	27.4
80°	22.0	21.3	20.6	19.9	19.2
82.5°	13.0	13.0	13.0	13.0	13.0
85°	6.9	7.5	8.2	8.9	9.6
87.5°	4.1	4.1	4.8	5.5	6.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)