

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: P558724

Luminaire Tested: FSR-12-1-LD4-1LO-40-UNV-81-86-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P558724
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-40-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 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 459.0 lumens
Efficiency: N/A
Efficacy: 79.1 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

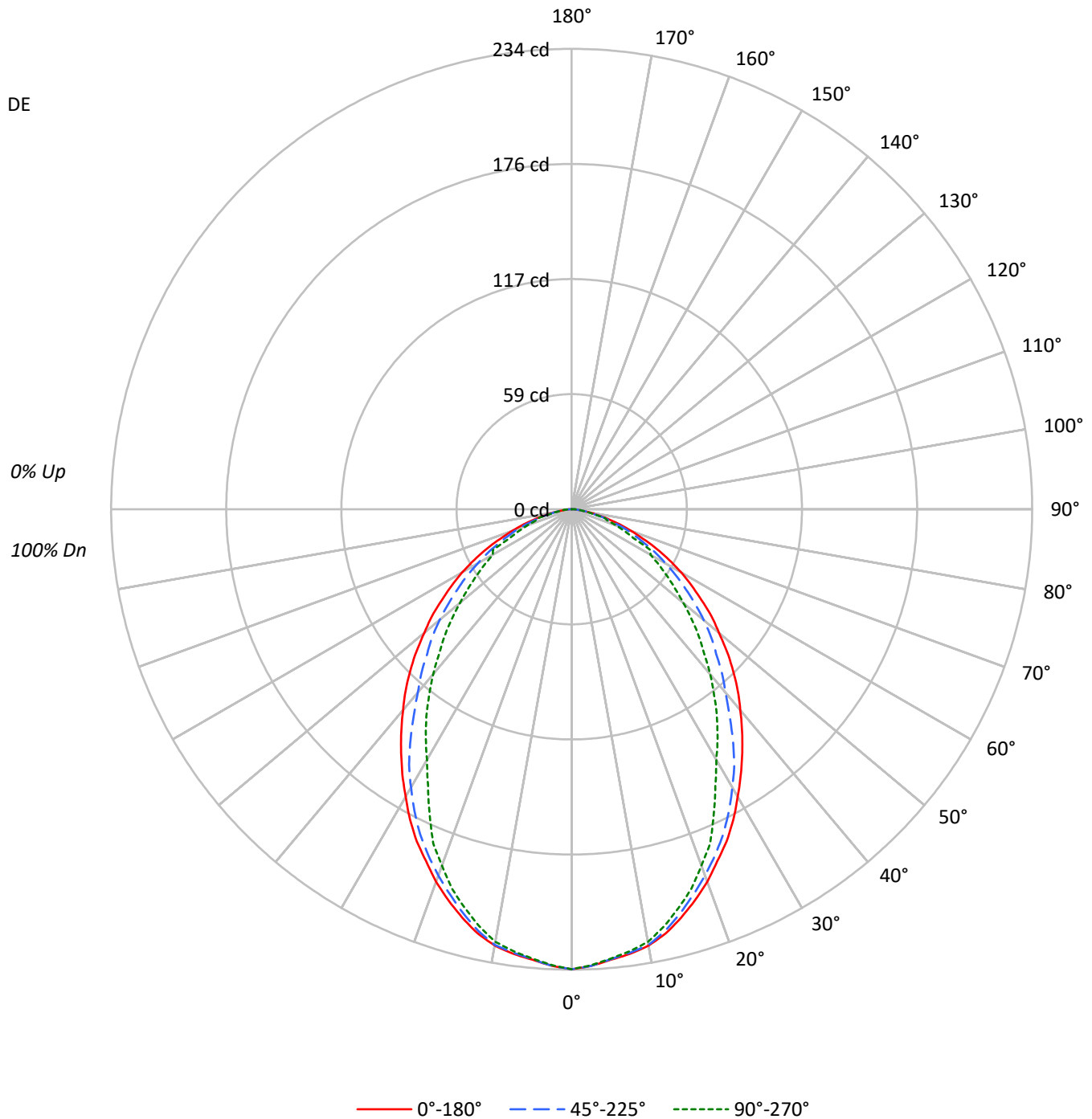
Input Watts (W): 5.8
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P558724

CATALOG NUMBER: FSR-12-1-LD4-1LO-40-UNV-81-86-EDD-90

Luminous Intensity Polar Plot





TEST NUMBER: P558724

CATALOG NUMBER: FSR-12-1-LD4-1LO-40-UNV-81-86-EDD-90

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	35	44	39	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°	2517	2517	2517
5°	2483	2480	2477
10°	2461	2458	2441
15°	2395	2370	2338
20°	2307	2269	2207
25°	2211	2164	2029
30°	2097	2030	1827
35°	1986	1875	1691
40°	1873	1709	1539
45°	1766	1580	1391
50°	1634	1467	1241
55°	1511	1329	1111
60°	1384	1186	995
65°	1217	1039	881
70°	1004	910	749
75°	799	699	732
80°	533	502	471
85°	333	395	469

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1766 cd/sqm



TEST NUMBER: P558724

CATALOG NUMBER: FSR-12-1-LD4-1LO-40-UNV-81-86-EDD-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	21.8	4.7
10°-20°	59.7	13.0
20°-30°	82.7	18.0
30°-40°	88.2	19.2
40°-50°	80.4	17.5
50°-60°	63.0	13.7
60°-70°	41.1	8.9
70°-80°	18.2	4.0
80°-90°	3.9	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°	164.2	35.8
0°-40°	252.4	55.0
0°-60°	395.8	86.2
0°-90°	459.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	459.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	234	234	234	234	234	
5°	230	230	230	229	229	22
15°	215	215	213	211	210	60
25°	186	185	182	176	171	86
35°	151	150	143	132	129	94
45°	116	114	104	95	91	89
55°	80	78	71	62	59	72
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	



TEST NUMBER: P558724

CATALOG NUMBER: FSR-12-1-LD4-1LO-40-UNV-81-86-EDD-90

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	233.8	233.8	233.8	233.8	233.8
2.5°	232.2	232.2	232.2	231.9	231.9
5°	229.8	229.5	229.5	229.2	229.2
7.5°	227.9	227.6	227.3	227.1	226.5
10°	225.2	225.2	224.9	223.5	223.3
12.5°	220.8	220.6	219.5	217.6	217.0
15°	214.9	214.9	212.7	210.6	209.8
17.5°	208.4	208.1	205.4	203.3	202.2
20°	201.4	200.8	198.1	194.6	192.7
22.5°	193.5	193.5	190.3	185.7	183.8
25°	186.2	185.2	182.2	175.7	170.8
27.5°	177.9	176.2	173.0	163.8	158.1
30°	168.7	167.9	163.3	151.4	147.0
32.5°	160.0	158.7	153.8	141.4	137.9
35°	151.1	150.0	142.7	131.9	128.7
37.5°	142.2	140.8	131.6	123.0	118.9
40°	133.3	131.6	121.6	113.8	109.5
42.5°	124.9	122.7	113.0	104.6	99.7
45°	116.0	113.5	103.8	95.1	91.4
47.5°	107.0	104.9	96.0	87.0	82.7
50°	97.6	95.7	87.6	78.7	74.1
52.5°	89.7	86.8	78.9	70.0	66.2
55°	80.5	78.1	70.8	62.4	59.2
57.5°	72.2	69.7	63.0	55.1	52.4
60°	64.3	60.8	55.1	48.4	46.2
62.5°	55.7	53.0	48.1	42.4	45.1
65°	47.8	45.1	40.8	41.6	34.6
67.5°	39.2	37.8	34.1	30.3	29.2
70°	31.9	30.3	28.9	24.9	23.8
72.5°	25.4	23.8	21.9	19.7	18.9
75°	19.2	17.8	16.8	15.9	17.6
77.5°	13.2	12.7	11.9	11.1	10.8
80°	8.6	8.4	8.1	7.8	7.6
82.5°	5.1	5.1	5.1	5.1	5.1
85°	2.7	3.0	3.2	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)