

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: P559381

Luminaire Tested: FSR-12-1-LD4-2LO-50-UNV-82-86-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559381
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-LD4-2LO-50-UNV-82-86-EDD
Description: 1X1 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

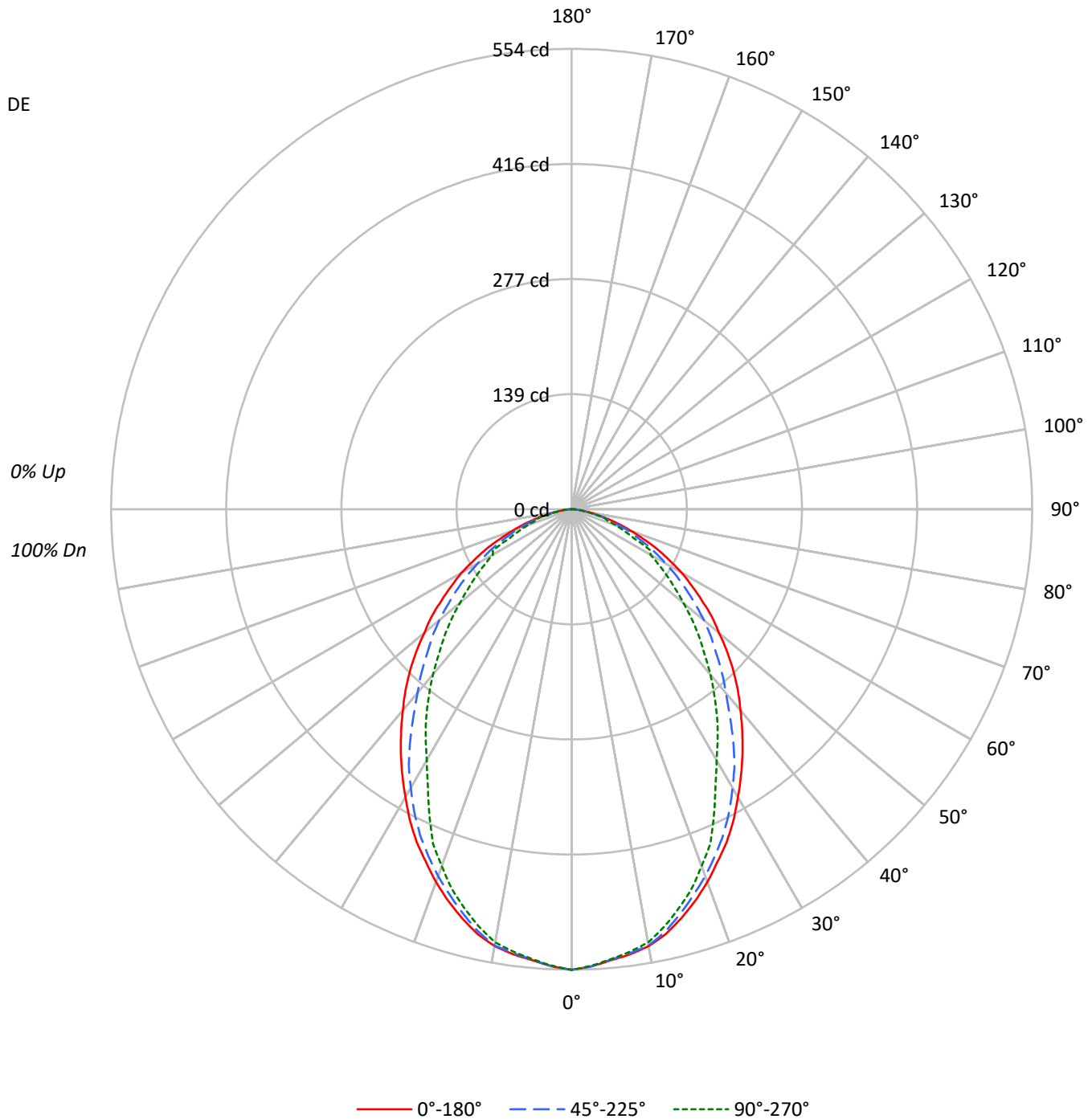
Lumens per Lamp: N/A
Luminaire Lumens: 1088.0 lumens
Efficiency: N/A
Efficacy: 93.0 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 11.7
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	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°	5965	5965	5965
5°	5884	5878	5870
10°	5833	5827	5784
15°	5677	5619	5541
20°	5467	5379	5233
25°	5242	5128	4809
30°	4969	4810	4332
35°	4707	4445	4008
40°	4439	4051	3646
45°	4185	3745	3297
50°	3873	3476	2941
55°	3582	3151	2633
60°	3283	2814	2359
65°	2888	2463	2089
70°	2379	2159	1775
75°	1892	1651	1730
80°	1271	1190	1110
85°	790	951	1112

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4185 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	51.6	4.7
10°-20°	141.6	13.0
20°-30°	196.0	18.0
30°-40°	209.0	19.2
40°-50°	190.7	17.5
50°-60°	149.4	13.7
60°-70°	97.4	8.9
70°-80°	43.1	4.0
80°-90°	9.3	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°	389.2	35.8
0°-40°	598.2	55.0
0°-60°	938.3	86.2
0°-90°	1088.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1088.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	554	554	554	554	554	
5°	545	544	544	543	543	52
15°	509	509	504	499	497	143
25°	441	439	432	416	405	203
35°	358	356	338	313	305	224
45°	275	269	246	226	217	212
55°	191	185	168	148	140	171
65°	113	107	97	99	82	112
75°	46	42	40	38	42	49
85°	6	7	8	8	9	9
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	554.2	554.2	554.2	554.2	554.2
2.5°	550.4	550.4	550.4	549.7	549.7
5°	544.6	544.0	544.0	543.3	543.3
7.5°	540.1	539.5	538.8	538.2	536.9
10°	533.7	533.7	533.1	529.9	529.2
12.5°	523.5	522.8	520.3	515.8	514.5
15°	509.4	509.4	504.2	499.1	497.2
17.5°	494.0	493.3	486.9	481.8	479.2
20°	477.3	476.0	469.6	461.3	456.8
22.5°	458.7	458.7	451.1	440.2	435.7
25°	441.4	438.9	431.8	416.5	404.9
27.5°	421.6	417.7	410.1	388.3	374.8
30°	399.8	397.9	387.0	358.8	348.5
32.5°	379.3	376.1	364.6	335.1	326.8
35°	358.2	355.6	338.3	312.7	305.0
37.5°	337.0	333.8	312.0	291.5	281.9
40°	315.9	312.0	288.3	269.7	259.5
42.5°	296.0	290.9	267.8	248.0	236.4
45°	274.9	269.1	246.0	225.5	216.6
47.5°	253.7	248.6	227.5	206.3	196.1
50°	231.3	226.8	207.6	186.4	175.6
52.5°	212.7	205.7	187.1	165.9	157.0
55°	190.9	185.2	167.9	148.0	140.3
57.5°	171.1	165.3	149.3	130.7	124.3
60°	152.5	144.2	130.7	114.7	109.6
62.5°	132.0	125.6	114.0	100.6	107.0
65°	113.4	107.0	96.7	98.7	82.0
67.5°	92.9	89.7	80.7	71.8	69.2
70°	75.6	71.8	68.6	58.9	56.4
72.5°	60.2	56.4	51.9	46.8	44.8
75°	45.5	42.3	39.7	37.8	41.6
77.5°	31.4	30.1	28.2	26.3	25.6
80°	20.5	19.9	19.2	18.6	17.9
82.5°	12.2	12.2	12.2	12.2	12.2
85°	6.4	7.0	7.7	8.3	9.0
87.5°	3.8	3.8	4.5	5.1	5.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)