

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: P558665

Luminaire Tested: FSR-12-1-LD4-1LO-35-UNV-81-88-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P558665
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-35-UNV-81-88-EDD
Description: 1X1 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

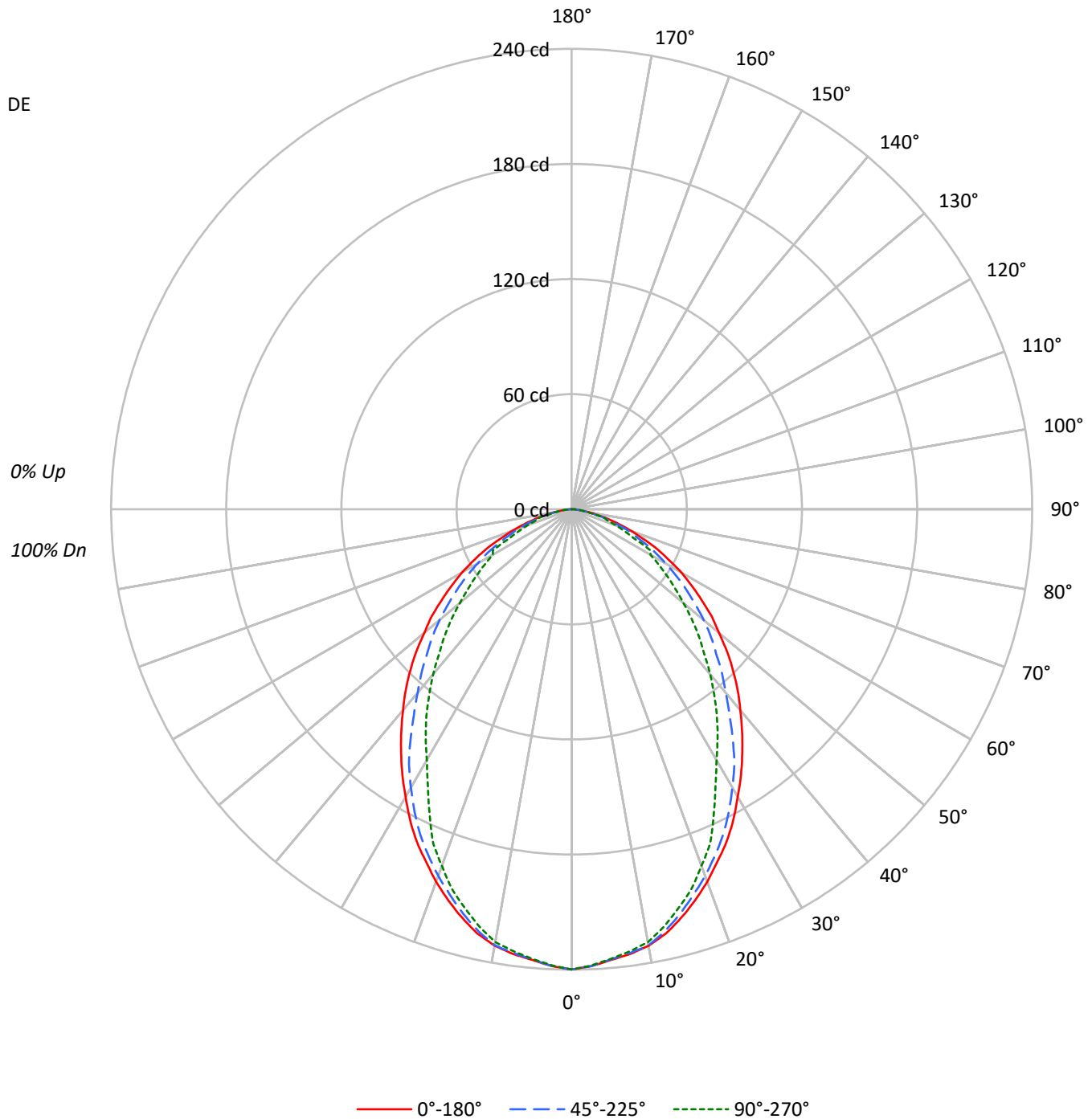
Lumens per Lamp: N/A
Luminaire Lumens: 471.0 lumens
Efficiency: N/A
Efficacy: 81.2 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 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



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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°	2582	2582	2582
5°	2548	2545	2541
10°	2525	2523	2504
15°	2457	2433	2398
20°	2367	2329	2266
25°	2270	2220	2082
30°	2151	2082	1876
35°	2037	1924	1735
40°	1921	1754	1578
45°	1811	1621	1426
50°	1676	1505	1273
55°	1552	1364	1139
60°	1421	1218	1020
65°	1251	1067	904
70°	1029	935	768
75°	819	715	749
80°	552	514	483
85°	346	408	482

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1811 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	22.3	4.7
10°-20°	61.3	13.0
20°-30°	84.9	18.0
30°-40°	90.5	19.2
40°-50°	82.5	17.5
50°-60°	64.7	13.7
60°-70°	42.1	8.9
70°-80°	18.7	4.0
80°-90°	4.0	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°	168.5	35.8
0°-40°	259.0	55.0
0°-60°	406.2	86.2
0°-90°	471.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	471.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	240	240	240	240	240	
5°	236	236	236	235	235	22
15°	220	220	218	216	215	62
25°	191	190	187	180	175	88
35°	155	154	146	135	132	97
45°	119	116	106	98	94	92
55°	83	80	73	64	61	74
65°	49	46	42	43	36	48
75°	20	18	17	16	18	21
85°	3	3	3	4	4	4
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	239.9	239.9	239.9	239.9	239.9
2.5°	238.3	238.3	238.3	238.0	238.0
5°	235.8	235.5	235.5	235.2	235.2
7.5°	233.8	233.5	233.3	233.0	232.4
10°	231.0	231.0	230.8	229.4	229.1
12.5°	226.6	226.3	225.2	223.3	222.7
15°	220.5	220.5	218.3	216.1	215.2
17.5°	213.8	213.6	210.8	208.6	207.5
20°	206.6	206.1	203.3	199.7	197.8
22.5°	198.6	198.6	195.3	190.6	188.6
25°	191.1	190.0	186.9	180.3	175.3
27.5°	182.5	180.8	177.5	168.1	162.3
30°	173.1	172.2	167.5	155.3	150.9
32.5°	164.2	162.8	157.8	145.1	141.5
35°	155.0	153.9	146.4	135.4	132.0
37.5°	145.9	144.5	135.1	126.2	122.0
40°	136.7	135.1	124.8	116.8	112.3
42.5°	128.1	125.9	115.9	107.3	102.3
45°	119.0	116.5	106.5	97.6	93.7
47.5°	109.8	107.6	98.5	89.3	84.9
50°	100.1	98.2	89.9	80.7	76.0
52.5°	92.1	89.0	81.0	71.8	68.0
55°	82.7	80.2	72.7	64.1	60.7
57.5°	74.1	71.6	64.6	56.6	53.8
60°	66.0	62.4	56.6	49.6	47.4
62.5°	57.1	54.4	49.4	43.5	46.3
65°	49.1	46.3	41.9	42.7	35.5
67.5°	40.2	38.8	34.9	31.1	30.0
70°	32.7	31.1	29.7	25.5	24.4
72.5°	26.1	24.4	22.5	20.2	19.4
75°	19.7	18.3	17.2	16.4	18.0
77.5°	13.6	13.0	12.2	11.4	11.1
80°	8.9	8.6	8.3	8.0	7.8
82.5°	5.3	5.3	5.3	5.3	5.3
85°	2.8	3.1	3.3	3.6	3.9
87.5°	1.7	1.7	1.9	2.2	2.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)