

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: P558808

Luminaire Tested: FSR-12-1-LD4-1LO-50-UNV-82-88-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P558808
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-50-UNV-82-88-EDD-90
Description: 1X1 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 412.0 lumens
Efficiency: N/A
Efficacy: 71.0 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

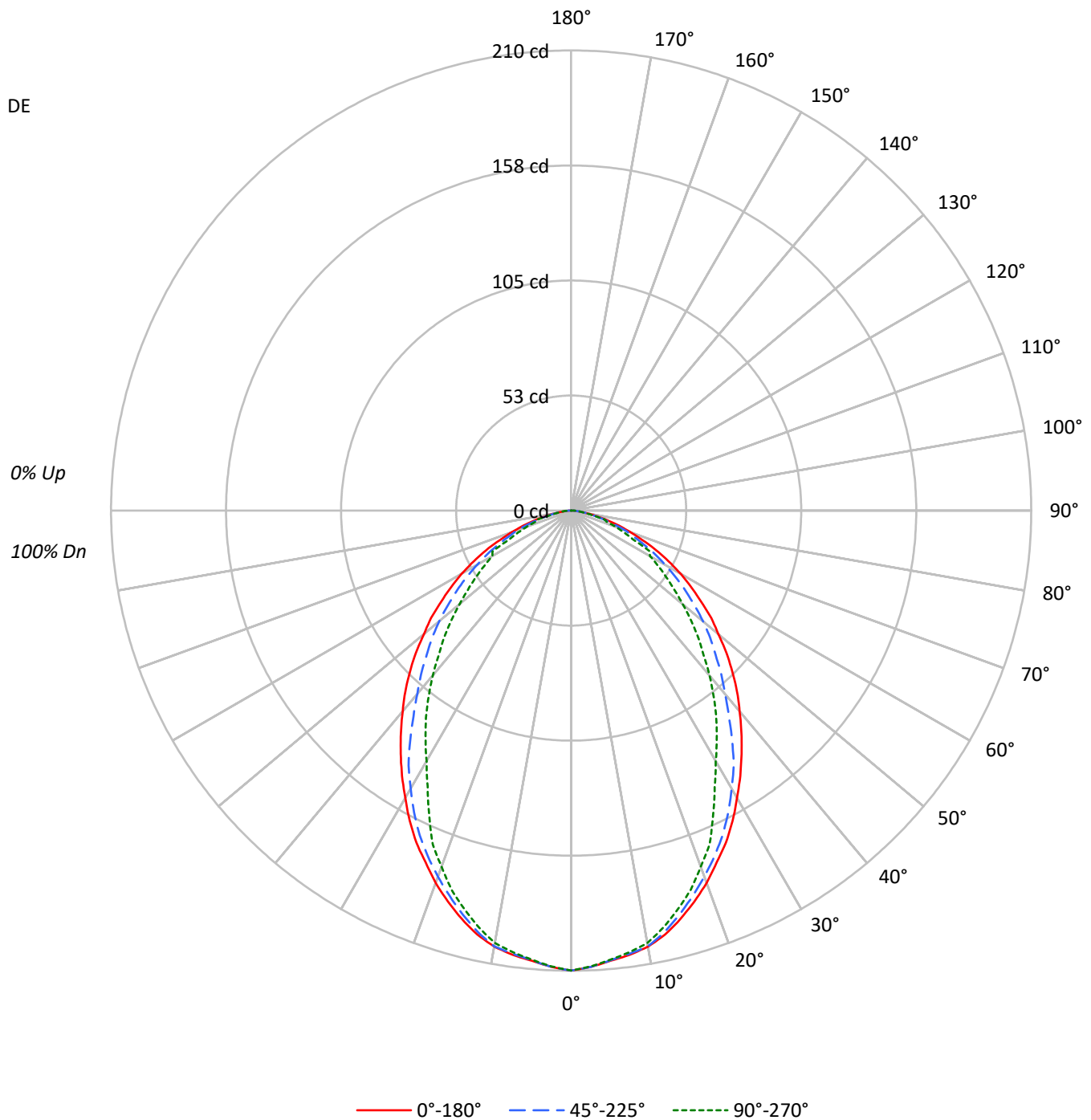
Input Watts (W): 5.8
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	2259	2259	2259
5°	2228	2226	2223
10°	2209	2207	2190
15°	2150	2127	2098
20°	2071	2037	1982
25°	1986	1942	1821
30°	1882	1821	1641
35°	1782	1683	1518
40°	1681	1534	1381
45°	1585	1419	1248
50°	1467	1316	1114
55°	1357	1194	996
60°	1242	1066	893
65°	1093	932	792
70°	900	818	673
75°	715	624	657
80°	483	453	422
85°	296	358	420

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1585 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	19.5	4.7
10°-20°	53.6	13.0
20°-30°	74.2	18.0
30°-40°	79.2	19.2
40°-50°	72.2	17.5
50°-60°	56.6	13.7
60°-70°	36.9	9.0
70°-80°	16.3	4.0
80°-90°	3.5	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°	147.4	35.8
0°-40°	226.5	55.0
0°-60°	355.3	86.2
0°-90°	412.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	412.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	210	210	210	210	210	
5°	206	206	206	206	206	20
15°	193	193	191	189	188	54
25°	167	166	164	158	153	77
35°	136	135	128	118	116	85
45°	104	102	93	85	82	80
55°	72	70	64	56	53	65
65°	43	40	37	37	31	42
75°	17	16	15	14	16	18
85°	2	3	3	3	3	3
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	209.9	209.9	209.9	209.9	209.9
2.5°	208.4	208.4	208.4	208.2	208.2
5°	206.2	206.0	206.0	205.7	205.7
7.5°	204.5	204.3	204.0	203.8	203.3
10°	202.1	202.1	201.9	200.6	200.4
12.5°	198.2	198.0	197.0	195.3	194.8
15°	192.9	192.9	190.9	189.0	188.3
17.5°	187.1	186.8	184.4	182.5	181.5
20°	180.8	180.3	177.8	174.7	173.0
22.5°	173.7	173.7	170.8	166.7	165.0
25°	167.2	166.2	163.5	157.7	153.3
27.5°	159.6	158.2	155.3	147.0	141.9
30°	151.4	150.7	146.5	135.9	132.0
32.5°	143.6	142.4	138.1	126.9	123.7
35°	135.6	134.7	128.1	118.4	115.5
37.5°	127.6	126.4	118.2	110.4	106.8
40°	119.6	118.2	109.2	102.1	98.3
42.5°	112.1	110.2	101.4	93.9	89.5
45°	104.1	101.9	93.2	85.4	82.0
47.5°	96.1	94.1	86.1	78.1	74.2
50°	87.6	85.9	78.6	70.6	66.5
52.5°	80.6	77.9	70.8	62.8	59.4
55°	72.3	70.1	63.6	56.0	53.1
57.5°	64.8	62.6	56.5	49.5	47.1
60°	57.7	54.6	49.5	43.4	41.5
62.5°	50.0	47.6	43.2	38.1	40.5
65°	42.9	40.5	36.6	37.4	31.1
67.5°	35.2	34.0	30.6	27.2	26.2
70°	28.6	27.2	26.0	22.3	21.4
72.5°	22.8	21.4	19.7	17.7	17.0
75°	17.2	16.0	15.0	14.3	15.8
77.5°	11.9	11.4	10.7	9.9	9.7
80°	7.8	7.5	7.3	7.0	6.8
82.5°	4.6	4.6	4.6	4.6	4.6
85°	2.4	2.7	2.9	3.2	3.4
87.5°	1.5	1.5	1.7	1.9	2.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)