

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: P558723

Luminaire Tested: FSR-12-1-LD4-1LO-40-UNV-81-85-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P558723
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-81-85-EDD
Description: 1X1 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 553.0 lumens
Efficiency: N/A
Efficacy: 95.3 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

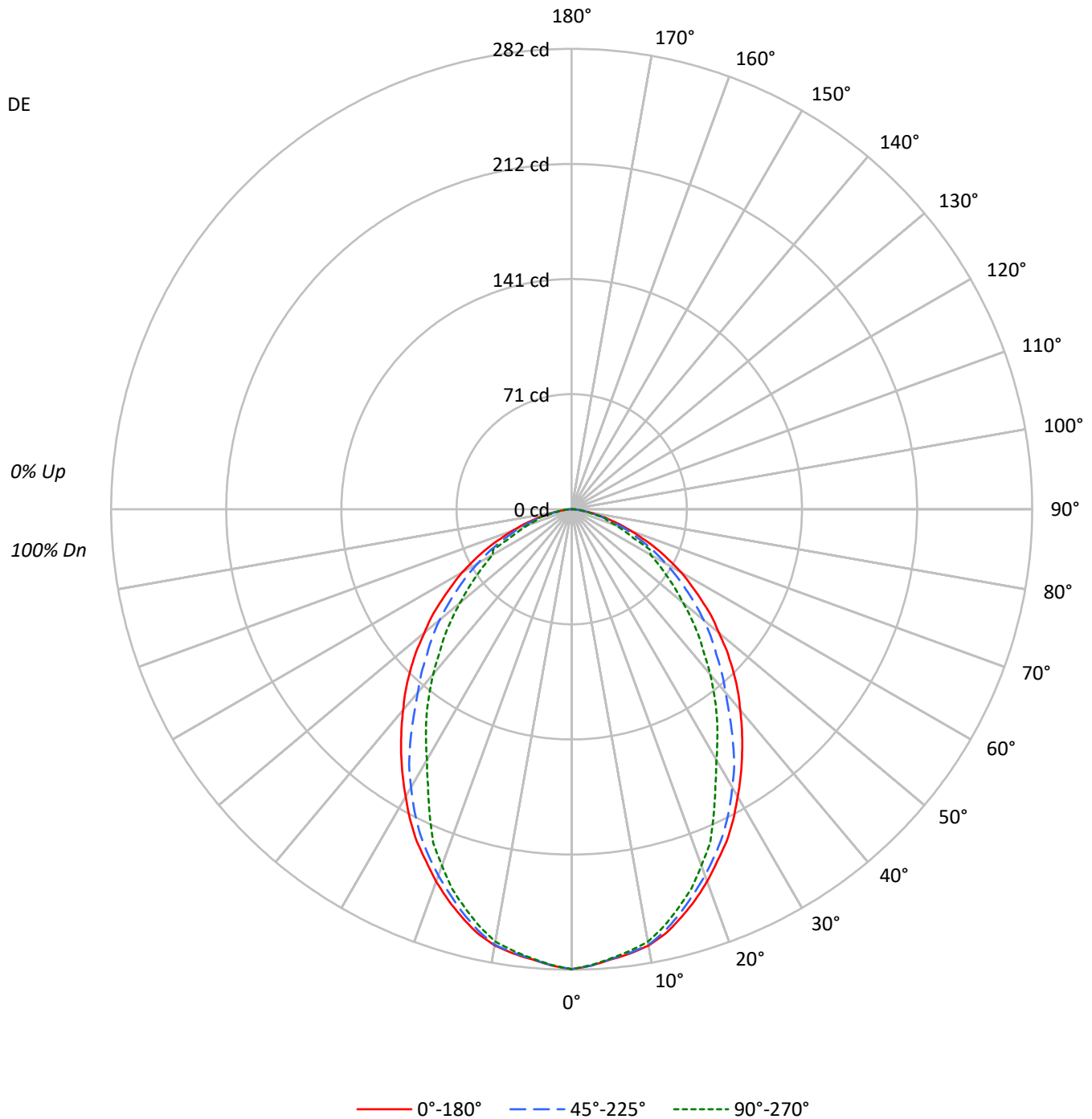
Input Watts (W): 5.8
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	3032	3032	3032
5°	2991	2988	2984
10°	2965	2961	2940
15°	2885	2856	2816
20°	2779	2734	2660
25°	2665	2607	2444
30°	2526	2445	2202
35°	2392	2259	2037
40°	2255	2059	1853
45°	2127	1904	1676
50°	1969	1767	1494
55°	1820	1601	1338
60°	1668	1429	1199
65°	1467	1253	1062
70°	1209	1095	903
75°	961	840	882
80°	645	607	564
85°	408	482	568

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2127 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	26.2	4.7
10°-20°	72.0	13.0
20°-30°	99.6	18.0
30°-40°	106.2	19.2
40°-50°	96.9	17.5
50°-60°	75.9	13.7
60°-70°	49.5	8.9
70°-80°	21.9	4.0
80°-90°	4.7	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°	197.8	35.8
0°-40°	304.0	55.0
0°-60°	476.9	86.2
0°-90°	553.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	553.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	282	282	282	282	282	
5°	277	276	276	276	276	26
15°	259	259	256	254	253	73
25°	224	223	220	212	206	103
35°	182	181	172	159	155	114
45°	140	137	125	115	110	108
55°	97	94	85	75	71	87
65°	58	54	49	50	42	57
75°	23	22	20	19	21	25
85°	3	4	4	4	5	5
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	281.7	281.7	281.7	281.7	281.7
2.5°	279.7	279.7	279.7	279.4	279.4
5°	276.8	276.5	276.5	276.2	276.2
7.5°	274.5	274.2	273.9	273.5	272.9
10°	271.3	271.3	270.9	269.3	269.0
12.5°	266.1	265.7	264.4	262.2	261.5
15°	258.9	258.9	256.3	253.7	252.7
17.5°	251.1	250.8	247.5	244.9	243.6
20°	242.6	242.0	238.7	234.5	232.2
22.5°	233.2	233.2	229.3	223.7	221.4
25°	224.4	223.1	219.5	211.7	205.8
27.5°	214.3	212.3	208.4	197.3	190.5
30°	203.2	202.2	196.7	182.4	177.2
32.5°	192.8	191.2	185.3	170.3	166.1
35°	182.0	180.7	171.9	158.9	155.0
37.5°	171.3	169.7	158.6	148.2	143.3
40°	160.5	158.6	146.5	137.1	131.9
42.5°	150.5	147.8	136.1	126.0	120.2
45°	139.7	136.8	125.1	114.6	110.1
47.5°	129.0	126.4	115.6	104.9	99.7
50°	117.6	115.3	105.5	94.8	89.2
52.5°	108.1	104.5	95.1	84.3	79.8
55°	97.0	94.1	85.3	75.2	71.3
57.5°	86.9	84.0	75.9	66.4	63.2
60°	77.5	73.3	66.4	58.3	55.7
62.5°	67.1	63.8	58.0	51.1	54.4
65°	57.6	54.4	49.2	50.2	41.7
67.5°	47.2	45.6	41.0	36.5	35.2
70°	38.4	36.5	34.8	30.0	28.7
72.5°	30.6	28.7	26.4	23.8	22.8
75°	23.1	21.5	20.2	19.2	21.2
77.5°	16.0	15.3	14.3	13.4	13.0
80°	10.4	10.1	9.8	9.4	9.1
82.5°	6.2	6.2	6.2	6.2	6.2
85°	3.3	3.6	3.9	4.2	4.6
87.5°	2.0	2.0	2.3	2.6	2.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)