

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: P558674

Luminaire Tested: FSR-12-1-LD4-1LO-35-UNV-82-85-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P558674
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-82-85-EDD-90
Description: 1X1 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 448.0 lumens
Efficiency: N/A
Efficacy: 77.2 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

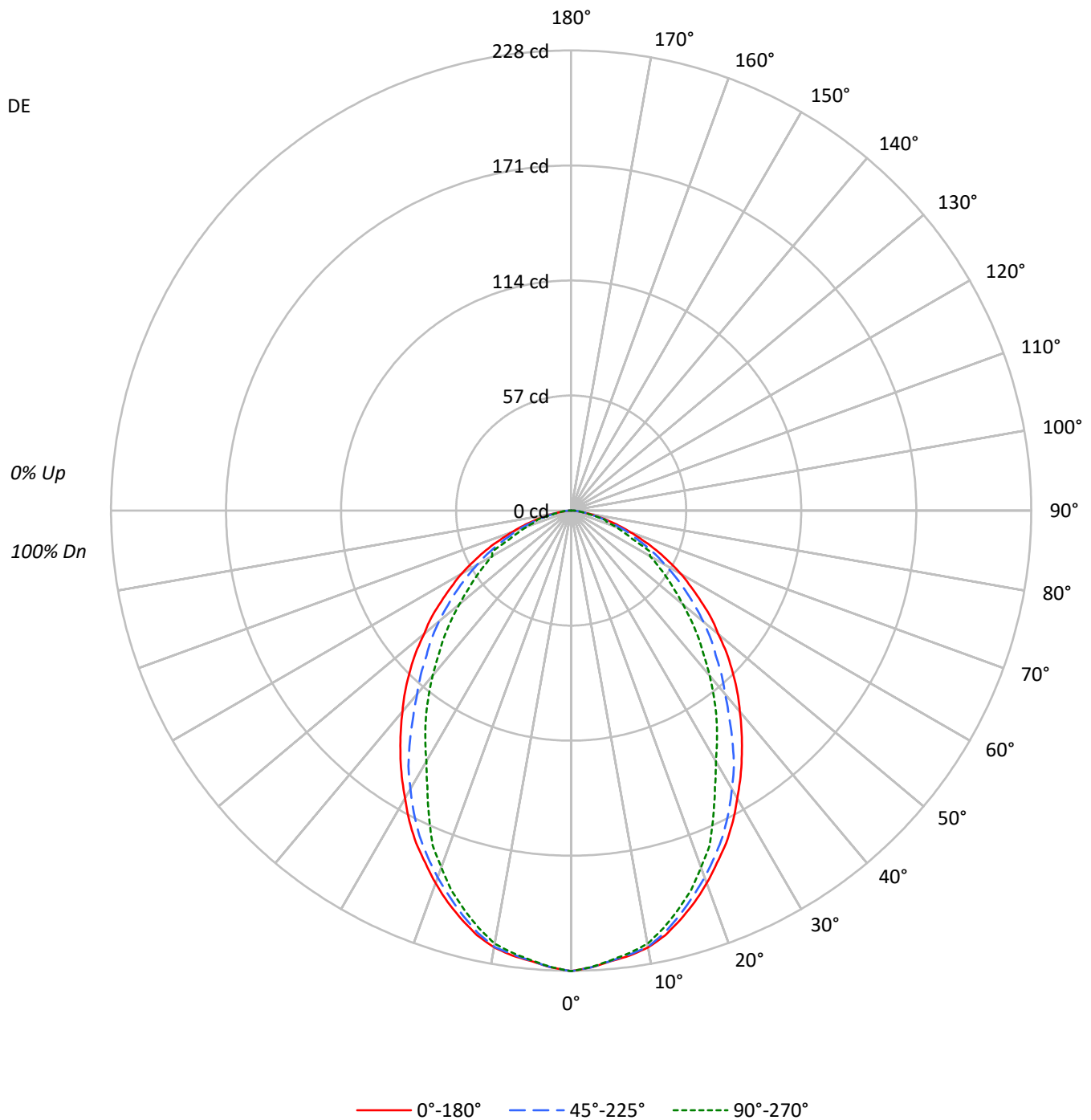
Input Watts (W): 5.8
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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																												
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°	2456	2456	2456
5°	2422	2420	2417
10°	2402	2399	2382
15°	2337	2313	2281
20°	2251	2215	2155
25°	2159	2112	1980
30°	2046	1980	1784
35°	1938	1830	1650
40°	1828	1668	1501
45°	1723	1542	1358
50°	1594	1432	1211
55°	1475	1297	1085
60°	1352	1158	971
65°	1189	1014	861
70°	979	887	730
75°	778	682	711
80°	521	490	459
85°	321	395	457

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1723 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	21.2	4.7
10°-20°	58.3	13.0
20°-30°	80.7	18.0
30°-40°	86.1	19.2
40°-50°	78.5	17.5
50°-60°	61.5	13.7
60°-70°	40.1	8.9
70°-80°	17.8	4.0
80°-90°	3.8	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°	160.2	35.8
0°-40°	246.3	55.0
0°-60°	386.3	86.2
0°-90°	448.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	448.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	228	228	228	228	228	
5°	224	224	224	224	224	21
15°	210	210	208	206	205	59
25°	182	181	178	172	167	83
35°	148	146	139	129	126	92
45°	113	111	101	93	89	87
55°	79	76	69	61	58	71
65°	47	44	40	41	34	46
75°	19	17	16	16	17	20
85°	3	3	3	3	4	4
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	228.2	228.2	228.2	228.2	228.2
2.5°	226.6	226.6	226.6	226.4	226.4
5°	224.2	224.0	224.0	223.7	223.7
7.5°	222.4	222.1	221.9	221.6	221.1
10°	219.8	219.8	219.5	218.2	217.9
12.5°	215.5	215.3	214.2	212.4	211.8
15°	209.7	209.7	207.6	205.5	204.7
17.5°	203.4	203.1	200.5	198.4	197.3
20°	196.5	196.0	193.4	190.0	188.1
22.5°	188.9	188.9	185.7	181.2	179.4
25°	181.8	180.7	177.8	171.5	166.7
27.5°	173.6	172.0	168.8	159.9	154.3
30°	164.6	163.8	159.3	147.7	143.5
32.5°	156.2	154.9	150.1	138.0	134.5
35°	147.5	146.4	139.3	128.7	125.6
37.5°	138.8	137.5	128.5	120.0	116.1
40°	130.1	128.5	118.7	111.1	106.8
42.5°	121.9	119.8	110.3	102.1	97.3
45°	113.2	110.8	101.3	92.9	89.2
47.5°	104.5	102.4	93.7	85.0	80.7
50°	95.2	93.4	85.5	76.8	72.3
52.5°	87.6	84.7	77.0	68.3	64.6
55°	78.6	76.2	69.1	60.9	57.8
57.5°	70.4	68.1	61.5	53.8	51.2
60°	62.8	59.4	53.8	47.2	45.1
62.5°	54.3	51.7	47.0	41.4	44.1
65°	46.7	44.1	39.8	40.6	33.8
67.5°	38.3	36.9	33.2	29.5	28.5
70°	31.1	29.5	28.2	24.3	23.2
72.5°	24.8	23.2	21.4	19.3	18.5
75°	18.7	17.4	16.4	15.6	17.1
77.5°	12.9	12.4	11.6	10.8	10.6
80°	8.4	8.2	7.9	7.7	7.4
82.5°	5.0	5.0	5.0	5.0	5.0
85°	2.6	2.9	3.2	3.4	3.7
87.5°	1.6	1.6	1.8	2.1	2.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)