

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: P558730

Luminaire Tested: FSR-12-1-LD4-1LO-40-UNV-81-94-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P558730
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-81-94-EDD-90
Description: 1X1 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 475.0 lumens
Efficiency: N/A
Efficacy: 81.9 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

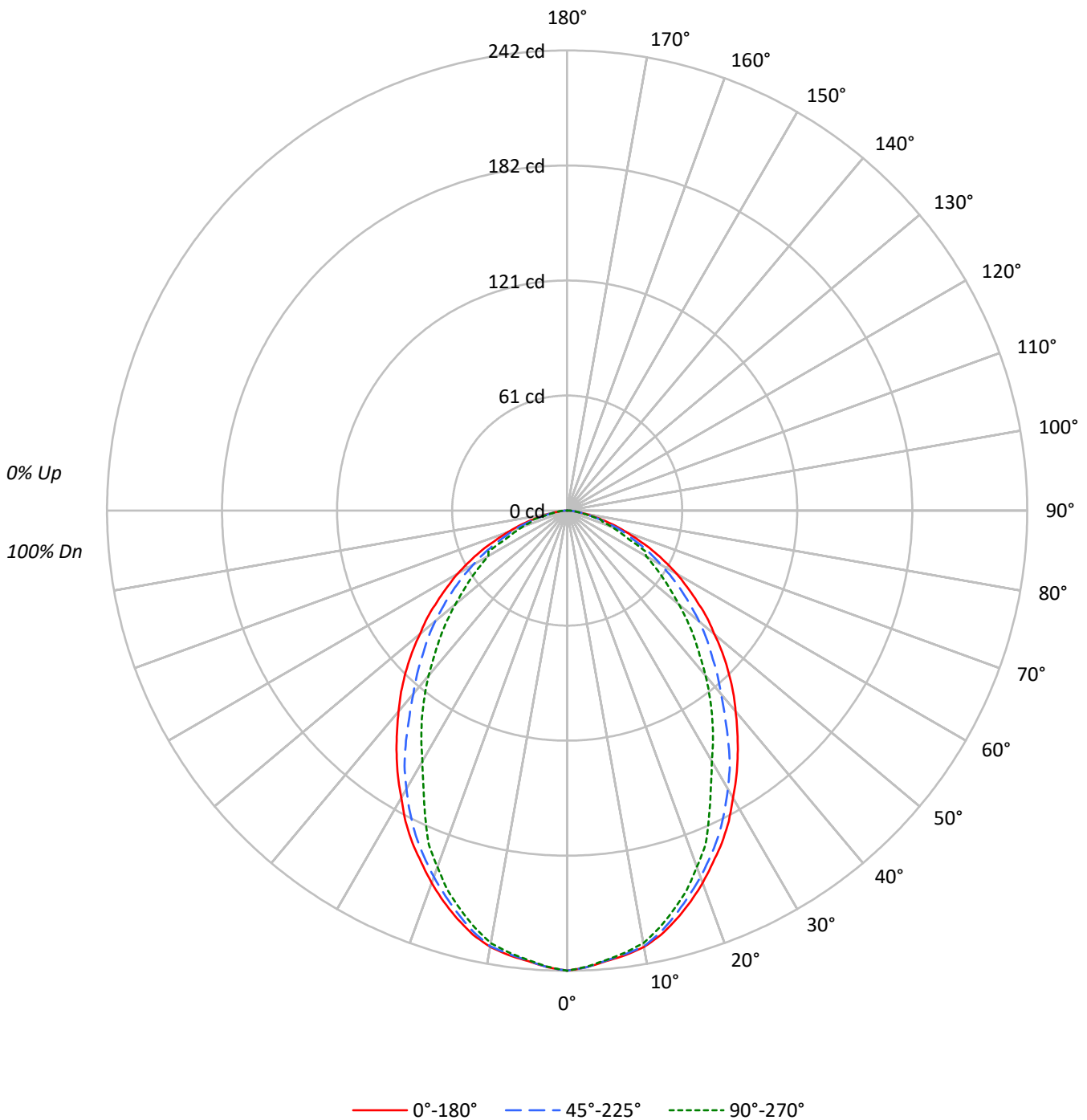
Input Watts (W): 5.8
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	2605	2605	2605
5°	2569	2566	2563
10°	2547	2543	2525
15°	2478	2453	2419
20°	2387	2348	2284
25°	2289	2239	2100
30°	2169	2101	1892
35°	2055	1941	1749
40°	1938	1769	1592
45°	1827	1635	1439
50°	1691	1517	1283
55°	1565	1376	1150
60°	1434	1229	1029
65°	1261	1075	912
70°	1039	941	774
75°	828	719	757
80°	558	521	483
85°	346	420	482

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1827 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	22.5	4.7
10°-20°	61.8	13.0
20°-30°	85.6	18.0
30°-40°	91.2	19.2
40°-50°	83.2	17.5
50°-60°	65.2	13.7
60°-70°	42.5	8.9
70°-80°	18.8	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°	169.9	35.8
0°-40°	261.2	55.0
0°-60°	409.6	86.2
0°-90°	475.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	475.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	242	242	242	242	242	
5°	238	238	238	237	237	23
15°	222	222	220	218	217	63
25°	193	192	188	182	177	88
35°	156	155	148	136	133	98
45°	120	118	107	98	94	92
55°	83	81	73	65	61	75
65°	50	47	42	43	36	49
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°	242.0	242.0	242.0	242.0	242.0
2.5°	240.3	240.3	240.3	240.0	240.0
5°	237.8	237.5	237.5	237.2	237.2
7.5°	235.8	235.5	235.2	235.0	234.4
10°	233.0	233.0	232.7	231.3	231.0
12.5°	228.5	228.3	227.1	225.2	224.6
15°	222.4	222.4	220.1	217.9	217.1
17.5°	215.7	215.4	212.6	210.4	209.2
20°	208.4	207.8	205.0	201.4	199.4
22.5°	200.3	200.3	196.9	192.2	190.2
25°	192.7	191.6	188.5	181.8	176.8
27.5°	184.1	182.4	179.0	169.5	163.6
30°	174.5	173.7	169.0	156.6	152.2
32.5°	165.6	164.2	159.2	146.3	142.7
35°	156.4	155.2	147.7	136.5	133.1
37.5°	147.1	145.7	136.2	127.3	123.1
40°	137.9	136.2	125.9	117.8	113.3
42.5°	129.2	127.0	116.9	108.3	103.2
45°	120.0	117.5	107.4	98.5	94.5
47.5°	110.8	108.5	99.3	90.1	85.6
50°	101.0	99.0	90.6	81.4	76.6
52.5°	92.9	89.8	81.7	72.4	68.5
55°	83.4	80.8	73.3	64.6	61.3
57.5°	74.7	72.2	65.2	57.1	54.3
60°	66.6	62.9	57.1	50.1	47.8
62.5°	57.6	54.8	49.8	43.9	46.7
65°	49.5	46.7	42.2	43.1	35.8
67.5°	40.6	39.2	35.2	31.3	30.2
70°	33.0	31.3	29.9	25.7	24.6
72.5°	26.3	24.6	22.7	20.4	19.6
75°	19.9	18.5	17.3	16.5	18.2
77.5°	13.7	13.1	12.3	11.5	11.2
80°	9.0	8.7	8.4	8.1	7.8
82.5°	5.3	5.3	5.3	5.3	5.3
85°	2.8	3.1	3.4	3.6	3.9
87.5°	1.7	1.7	2.0	2.2	2.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)