

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: P558656

Luminaire Tested: FSR-12-1-LD4-1LO-35-UNV-81-84-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P558656
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-81-84-EDD-90
Description: 1X1 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 467.0 lumens
Efficiency: N/A
Efficacy: 80.5 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

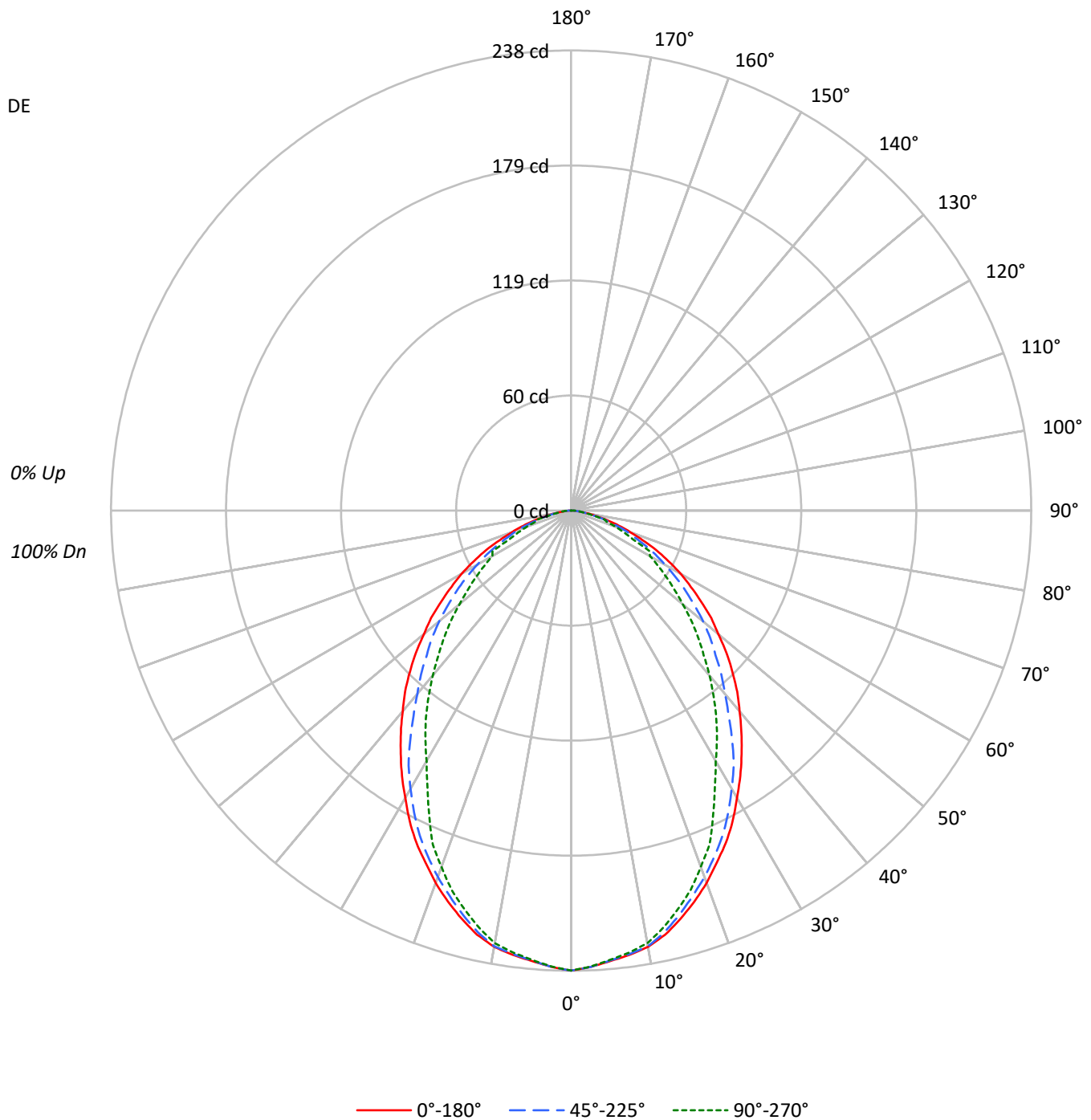
Input Watts (W): 5.8
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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	47	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°	2561	2561	2561
5°	2526	2523	2520
10°	2504	2501	2483
15°	2436	2411	2378
20°	2347	2309	2246
25°	2251	2202	2064
30°	2133	2064	1859
35°	2020	1908	1720
40°	1905	1740	1565
45°	1796	1607	1416
50°	1663	1492	1263
55°	1539	1353	1130
60°	1410	1208	1012
65°	1240	1057	897
70°	1023	925	762
75°	811	711	744
80°	545	514	477
85°	346	408	482

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1796 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	22.1	4.7
10°-20°	60.8	13.0
20°-30°	84.1	18.0
30°-40°	89.7	19.2
40°-50°	81.9	17.5
50°-60°	64.1	13.7
60°-70°	41.8	8.9
70°-80°	18.5	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°	167.1	35.8
0°-40°	256.8	55.0
0°-60°	402.7	86.2
0°-90°	467.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	467.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	238	238	238	238	238	
5°	234	234	234	233	233	22
15°	219	219	216	214	213	61
25°	190	188	185	179	174	87
35°	154	153	145	134	131	96
45°	118	116	106	97	93	91
55°	82	80	72	64	60	74
65°	49	46	42	42	35	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°	237.9	237.9	237.9	237.9	237.9
2.5°	236.2	236.2	236.2	236.0	236.0
5°	233.8	233.5	233.5	233.2	233.2
7.5°	231.8	231.6	231.3	231.0	230.5
10°	229.1	229.1	228.8	227.4	227.2
12.5°	224.7	224.4	223.3	221.4	220.8
15°	218.6	218.6	216.4	214.2	213.4
17.5°	212.0	211.8	209.0	206.8	205.7
20°	204.9	204.3	201.6	198.0	196.1
22.5°	196.9	196.9	193.6	188.9	187.0
25°	189.5	188.4	185.4	178.8	173.8
27.5°	181.0	179.3	176.0	166.7	160.9
30°	171.6	170.8	166.1	154.0	149.6
32.5°	162.8	161.4	156.5	143.8	140.3
35°	153.7	152.6	145.2	134.2	130.9
37.5°	144.7	143.3	133.9	125.1	121.0
40°	135.6	133.9	123.8	115.8	111.4
42.5°	127.1	124.9	115.0	106.4	101.5
45°	118.0	115.5	105.6	96.8	93.0
47.5°	108.9	106.7	97.6	88.6	84.2
50°	99.3	97.4	89.1	80.0	75.4
52.5°	91.3	88.3	80.3	71.2	67.4
55°	82.0	79.5	72.1	63.5	60.2
57.5°	73.4	71.0	64.1	56.1	53.4
60°	65.5	61.9	56.1	49.2	47.0
62.5°	56.7	53.9	49.0	43.2	45.9
65°	48.7	45.9	41.5	42.4	35.2
67.5°	39.9	38.5	34.7	30.8	29.7
70°	32.5	30.8	29.4	25.3	24.2
72.5°	25.9	24.2	22.3	20.1	19.3
75°	19.5	18.2	17.1	16.2	17.9
77.5°	13.5	12.9	12.1	11.3	11.0
80°	8.8	8.5	8.3	8.0	7.7
82.5°	5.2	5.2	5.2	5.2	5.2
85°	2.8	3.0	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)