

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: P558728

Luminaire Tested: FSR-12-1-LD4-1LO-40-UNV-81-88-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P558728
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-81-88-EDD-90
Description: 1X1 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 400.0 lumens
Efficiency: N/A
Efficacy: 69.0 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

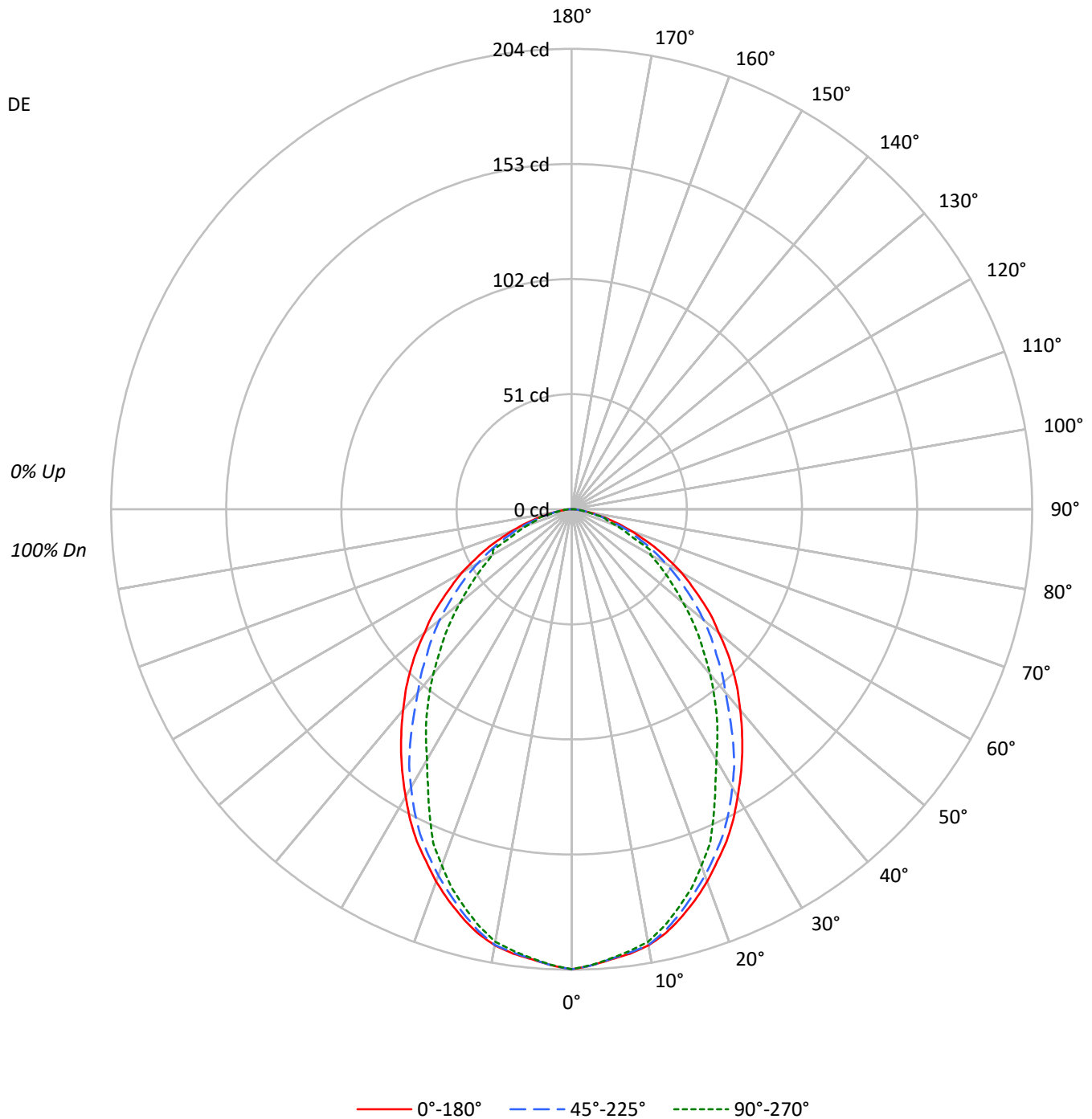
Input Watts (W): 5.8
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	2194	2194	2194
5°	2163	2161	2159
10°	2144	2142	2127
15°	2087	2066	2037
20°	2010	1978	1924
25°	1928	1886	1768
30°	1827	1769	1592
35°	1731	1635	1473
40°	1631	1489	1340
45°	1539	1378	1212
50°	1423	1278	1080
55°	1317	1158	968
60°	1208	1035	868
65°	1062	907	769
70°	875	793	651
75°	695	607	636
80°	465	440	409
85°	296	346	408

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1539 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	19.0	4.7
10°-20°	52.1	13.0
20°-30°	72.1	18.0
30°-40°	76.8	19.2
40°-50°	70.1	17.5
50°-60°	54.9	13.7
60°-70°	35.8	9.0
70°-80°	15.9	4.0
80°-90°	3.4	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°	143.1	35.8
0°-40°	219.9	55.0
0°-60°	345.0	86.2
0°-90°	400.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	400.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	204	204	204	204	204	
5°	200	200	200	200	200	19
15°	187	187	185	184	183	53
25°	162	161	159	153	149	75
35°	132	131	124	115	112	82
45°	101	99	90	83	80	78
55°	70	68	62	54	52	63
65°	42	39	36	36	30	41
75°	17	16	15	14	15	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°	203.8	203.8	203.8	203.8	203.8
2.5°	202.3	202.3	202.3	202.1	202.1
5°	200.2	200.0	200.0	199.8	199.8
7.5°	198.6	198.3	198.1	197.9	197.4
10°	196.2	196.2	196.0	194.8	194.6
12.5°	192.4	192.2	191.3	189.6	189.2
15°	187.3	187.3	185.4	183.5	182.8
17.5°	181.6	181.4	179.0	177.1	176.2
20°	175.5	175.0	172.7	169.6	168.0
22.5°	168.7	168.7	165.8	161.8	160.2
25°	162.3	161.4	158.8	153.1	148.9
27.5°	155.0	153.6	150.8	142.7	137.8
30°	147.0	146.3	142.3	131.9	128.1
32.5°	139.4	138.3	134.0	123.2	120.1
35°	131.7	130.7	124.4	115.0	112.1
37.5°	123.9	122.7	114.7	107.2	103.6
40°	116.1	114.7	106.0	99.2	95.4
42.5°	108.8	106.9	98.5	91.2	86.9
45°	101.1	98.9	90.5	82.9	79.6
47.5°	93.3	91.4	83.6	75.8	72.1
50°	85.0	83.4	76.3	68.5	64.5
52.5°	78.2	75.6	68.8	61.0	57.7
55°	70.2	68.1	61.7	54.4	51.6
57.5°	62.9	60.8	54.9	48.1	45.7
60°	56.1	53.0	48.1	42.2	40.3
62.5°	48.5	46.2	41.9	37.0	39.3
65°	41.7	39.3	35.6	36.3	30.2
67.5°	34.2	33.0	29.7	26.4	25.4
70°	27.8	26.4	25.2	21.7	20.7
72.5°	22.1	20.7	19.1	17.2	16.5
75°	16.7	15.5	14.6	13.9	15.3
77.5°	11.5	11.1	10.4	9.7	9.4
80°	7.5	7.3	7.1	6.8	6.6
82.5°	4.5	4.5	4.5	4.5	4.5
85°	2.4	2.6	2.8	3.1	3.3
87.5°	1.4	1.4	1.6	1.9	2.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)