

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: P558649

Luminaire Tested: FSR-12-1-LD4-1LO-35-UNV-80-88-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P558649
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-80-88-EDD
Description: 1X1 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .500 CLEAR PC ENVIRON
SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 496.0 lumens
Efficiency: N/A
Efficacy: 85.5 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

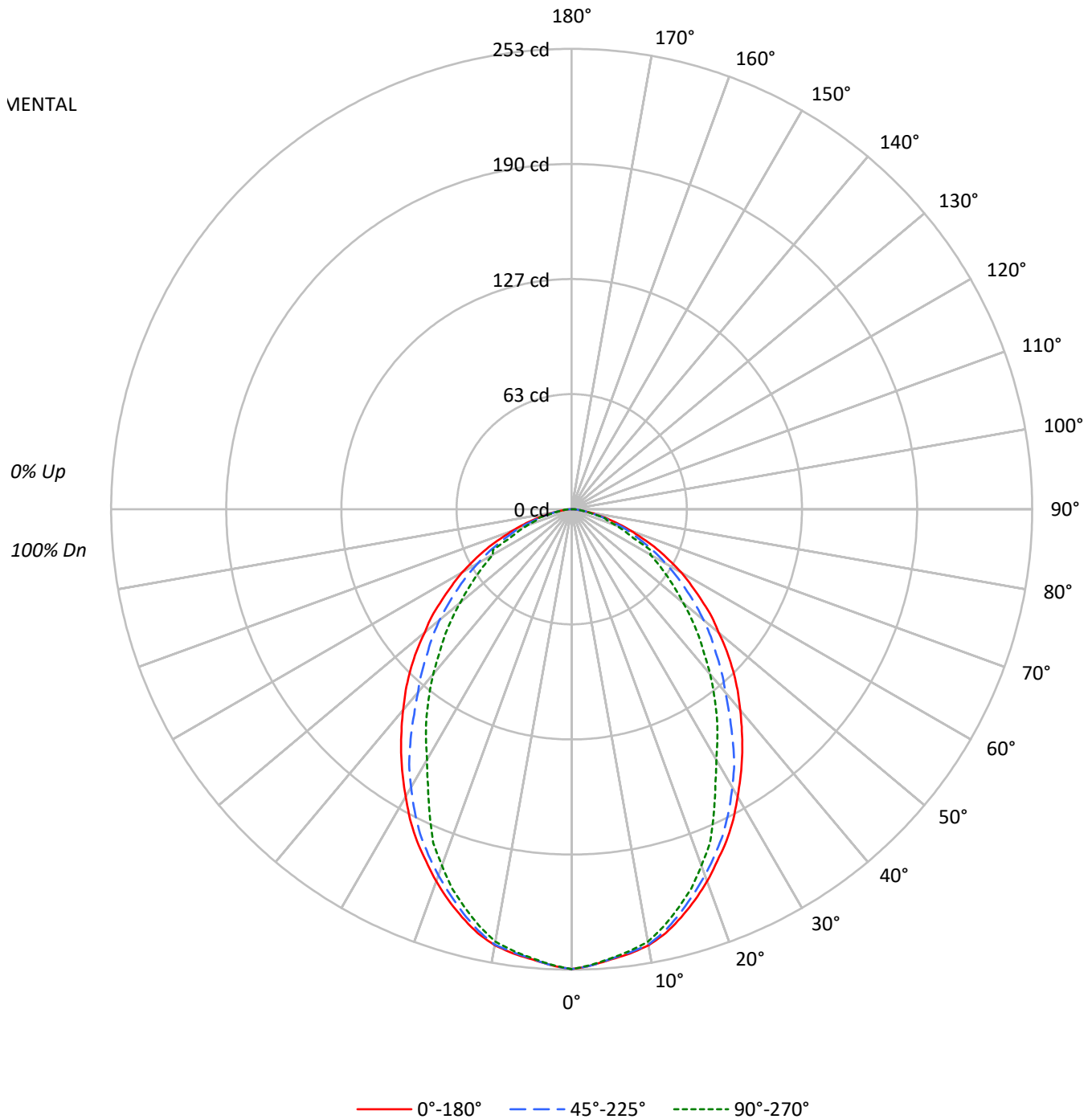
Input Watts (W): 5.8
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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	100	100	100	100	100	100		
1	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87	87	87	87	87	87	87		
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75	75	75	75	75	75	75		
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65	65	65	65	65	65	65		
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56	56	56	56	56	56	56		
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50	50	50	50	50	50	50		
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44	44	44	44	44	44	44		
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40	40	40	40	40	40	40		
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36	36	36	36	36	36	36		
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33	33	33	33	33	33	33		
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30	30	30	30	30	30	30		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2720	2720	2720
5°	2683	2680	2676
10°	2659	2656	2637
15°	2588	2562	2526
20°	2493	2452	2386
25°	2390	2339	2192
30°	2266	2192	1975
35°	2146	2026	1827
40°	2023	1846	1662
45°	1907	1708	1502
50°	1765	1584	1340
55°	1633	1436	1201
60°	1496	1283	1074
65°	1317	1123	953
70°	1086	985	809
75°	861	753	790
80°	576	545	508
85°	358	432	506

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1907 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	23.5	4.7
10°-20°	64.5	13.0
20°-30°	89.4	18.0
30°-40°	95.3	19.2
40°-50°	86.9	17.5
50°-60°	68.1	13.7
60°-70°	44.4	8.9
70°-80°	19.7	4.0
80°-90°	4.2	0.8
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°	177.4	35.8
0°-40°	272.7	55.0
0°-60°	427.7	86.2
0°-90°	496.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	496.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	253	253	253	253	253	
5°	248	248	248	248	248	24
15°	232	232	230	228	227	65
25°	201	200	197	190	185	92
35°	163	162	154	142	139	102
45°	125	123	112	103	99	97
55°	87	84	76	68	64	78
65°	52	49	44	45	37	51
75°	21	19	18	17	19	22
85°	3	3	4	4	4	4
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	252.7	252.7	252.7	252.7	252.7
2.5°	250.9	250.9	250.9	250.6	250.6
5°	248.3	248.0	248.0	247.7	247.7
7.5°	246.2	245.9	245.6	245.4	244.8
10°	243.3	243.3	243.0	241.6	241.3
12.5°	238.6	238.3	237.2	235.1	234.5
15°	232.2	232.2	229.9	227.5	226.7
17.5°	225.2	224.9	222.0	219.6	218.5
20°	217.6	217.0	214.1	210.3	208.3
22.5°	209.1	209.1	205.6	200.7	198.6
25°	201.2	200.1	196.9	189.9	184.6
27.5°	192.2	190.4	186.9	177.0	170.9
30°	182.3	181.4	176.4	163.6	158.9
32.5°	172.9	171.5	166.2	152.8	149.0
35°	163.3	162.1	154.2	142.5	139.0
37.5°	153.6	152.2	142.2	132.9	128.5
40°	144.0	142.2	131.4	123.0	118.3
42.5°	134.9	132.6	122.1	113.0	107.8
45°	125.3	122.7	112.2	102.8	98.7
47.5°	115.7	113.3	103.7	94.1	89.4
50°	105.4	103.4	94.6	85.0	80.0
52.5°	97.0	93.8	85.3	75.7	71.6
55°	87.0	84.4	76.5	67.5	64.0
57.5°	78.0	75.4	68.1	59.6	56.7
60°	69.5	65.7	59.6	52.3	49.9
62.5°	60.2	57.2	52.0	45.9	48.8
65°	51.7	48.8	44.1	45.0	37.4
67.5°	42.4	40.9	36.8	32.7	31.5
70°	34.5	32.7	31.3	26.9	25.7
72.5°	27.5	25.7	23.7	21.3	20.4
75°	20.7	19.3	18.1	17.2	19.0
77.5°	14.3	13.7	12.9	12.0	11.7
80°	9.3	9.1	8.8	8.5	8.2
82.5°	5.5	5.5	5.5	5.5	5.5
85°	2.9	3.2	3.5	3.8	4.1
87.5°	1.8	1.8	2.0	2.3	2.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)