

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: P559393

Luminaire Tested: FSR-12-1-LD4-2LO-50-UNV-93-84-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559393
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-LD4-2LO-50-UNV-93-84-EDD
Description: 1X1 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1209.0 lumens
Efficiency: N/A
Efficacy: 103.3 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

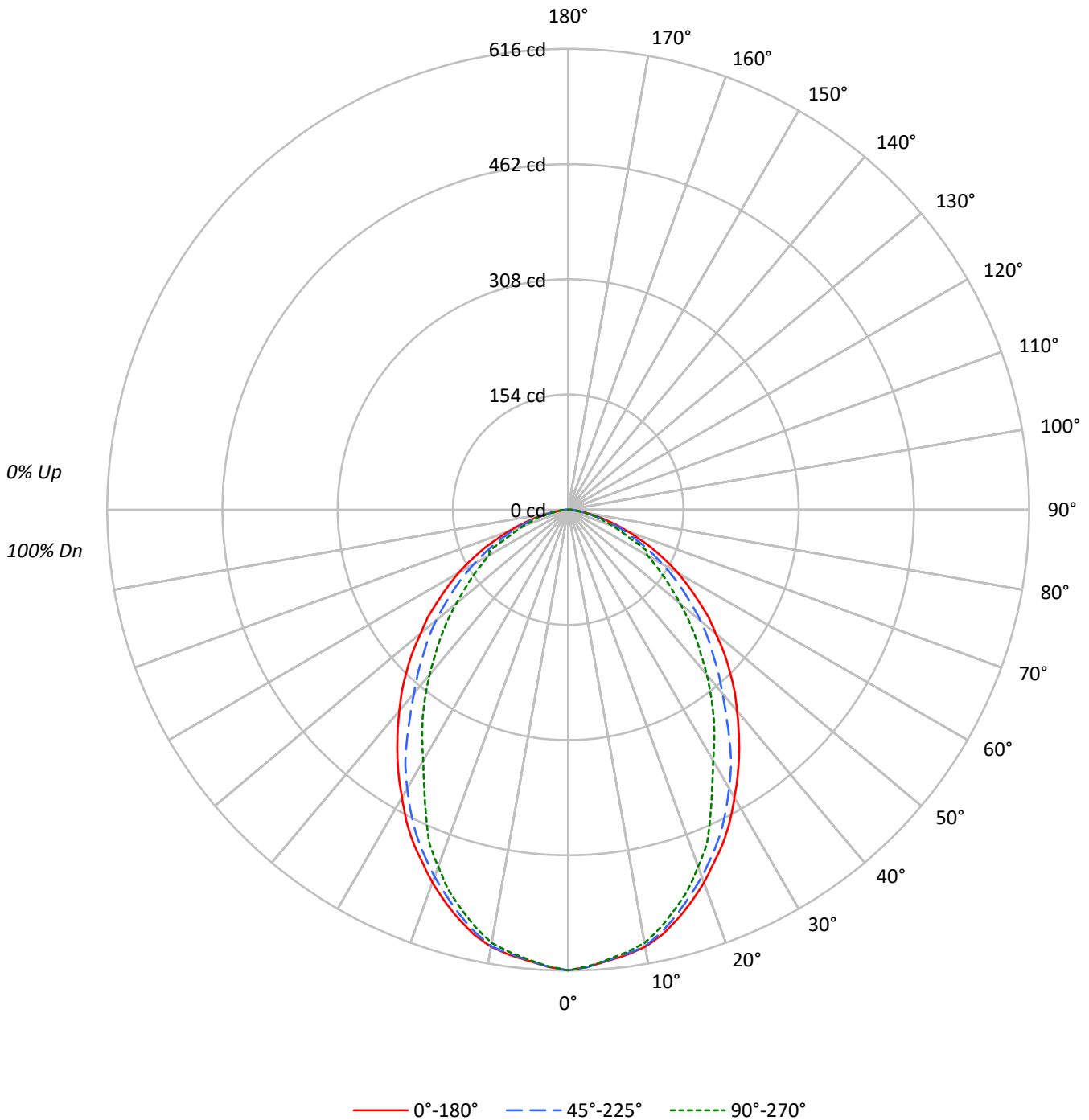
Input Watts (W): 11.7
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6628	6628	6628
5°	6539	6532	6523
10°	6483	6475	6428
15°	6307	6244	6157
20°	6076	5978	5814
25°	5826	5700	5344
30°	5522	5345	4814
35°	5230	4939	4453
40°	4932	4502	4051
45°	4649	4162	3663
50°	4304	3863	3267
55°	3982	3500	2926
60°	3647	3126	2620
65°	3209	2738	2320
70°	2644	2398	1973
75°	2100	1834	1926
80°	1413	1327	1234
85°	877	1050	1235

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4649 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	57.3	4.7
10°-20°	157.3	13.0
20°-30°	217.8	18.0
30°-40°	232.2	19.2
40°-50°	211.9	17.5
50°-60°	166.0	13.7
60°-70°	108.2	8.9
70°-80°	47.9	4.0
80°-90°	10.3	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°	432.5	35.8
0°-40°	664.7	55.0
0°-60°	1042.6	86.2
0°-90°	1209.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1209.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	616	616	616	616	616	
5°	605	604	604	604	604	57
15°	566	566	560	555	552	159
25°	490	488	480	463	450	225
35°	398	395	376	347	339	249
45°	305	299	273	251	241	235
55°	212	206	186	164	156	190
65°	126	119	108	110	91	124
75°	50	47	44	42	46	54
85°	7	8	8	9	10	10
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	615.8	615.8	615.8	615.8	615.8
2.5°	611.6	611.6	611.6	610.9	610.9
5°	605.2	604.5	604.5	603.7	603.7
7.5°	600.2	599.5	598.8	598.0	596.6
10°	593.1	593.1	592.4	588.8	588.1
12.5°	581.7	581.0	578.1	573.1	571.7
15°	566.0	566.0	560.3	554.6	552.5
17.5°	548.9	548.2	541.1	535.4	532.5
20°	530.4	529.0	521.9	512.6	507.6
22.5°	509.8	509.8	501.2	489.1	484.1
25°	490.5	487.7	479.9	462.8	450.0
27.5°	468.5	464.2	455.7	431.4	416.5
30°	444.3	442.1	430.0	398.7	387.3
32.5°	421.5	417.9	405.1	372.4	363.1
35°	398.0	395.1	375.9	347.4	338.9
37.5°	374.5	370.9	346.7	323.9	313.3
40°	351.0	346.7	320.4	299.7	288.3
42.5°	328.9	323.2	297.6	275.5	262.7
45°	305.4	299.0	273.4	250.6	240.6
47.5°	281.9	276.2	252.7	229.3	217.9
50°	257.0	252.0	230.7	207.2	195.1
52.5°	236.4	228.5	207.9	184.4	174.4
55°	212.2	205.8	186.5	164.5	155.9
57.5°	190.1	183.7	165.9	145.2	138.1
60°	169.4	160.2	145.2	127.4	121.7
62.5°	146.7	139.5	126.7	111.8	118.9
65°	126.0	118.9	107.5	109.6	91.1
67.5°	103.2	99.7	89.7	79.7	76.9
70°	84.0	79.7	76.2	65.5	62.7
72.5°	66.9	62.7	57.7	52.0	49.8
75°	50.5	47.0	44.1	42.0	46.3
77.5°	34.9	33.5	31.3	29.2	28.5
80°	22.8	22.1	21.4	20.6	19.9
82.5°	13.5	13.5	13.5	13.5	13.5
85°	7.1	7.8	8.5	9.3	10.0
87.5°	4.3	4.3	5.0	5.7	6.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)