

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: P589963

Luminaire Tested: FSR-24-2-LD4-1LO-35-UNV-82-96-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P589963
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-135-1)
Test Lab: INNOVATION CENTER
Issue Date: 12/8/2021
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: FAIL-SAFE
Catalog Number: FSR-24-2-LD4-1LO-35-UNV-82-96-EDD
Description: 2X2 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1343.0 lumens
Efficiency: N/A
Efficacy: 114.8 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

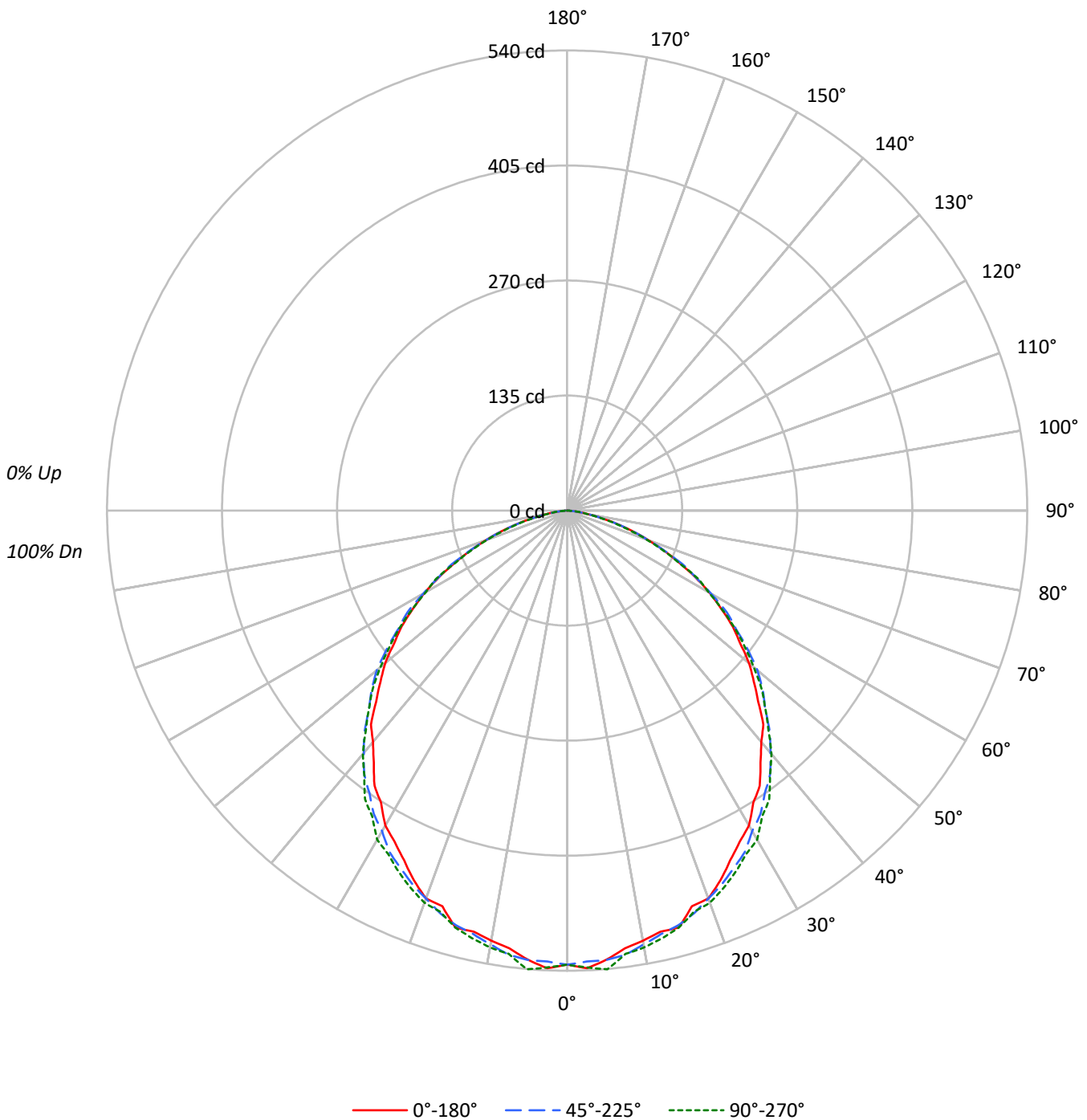
Input Watts (W): 11.7
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	110	105	101	98	107	103	100	96	99	96	93	95	93	90	91	90	88					86				
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75					73				
3	92	82	74	68	89	80	73	67	77	71	66	75	69	65	72	68	64					62				
4	84	73	64	58	82	71	64	58	69	62	57	67	61	56	65	59	55					53				
5	78	65	57	50	76	64	56	50	62	55	49	60	54	49	58	53	48					46				
6	72	59	50	44	70	58	50	44	56	49	43	54	48	43	53	47	43					41				
7	67	53	45	39	65	53	45	39	51	44	39	50	43	38	48	42	38					36				
8	62	49	41	35	61	48	40	35	47	40	34	46	39	34	44	39	34					32				
9	58	45	37	31	57	44	37	31	43	36	31	42	36	31	41	35	31					29				
10	54	41	34	29	53	41	33	28	40	33	28	39	33	28	38	32	28					26				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1434	1434	1434
5°	1429	1430	1460
10°	1400	1412	1423
15°	1411	1404	1412
20°	1387	1387	1402
25°	1345	1374	1389
30°	1326	1349	1386
35°	1295	1329	1359
40°	1245	1305	1310
45°	1207	1250	1252
50°	1168	1220	1197
55°	1112	1134	1126
60°	1040	1051	1032
65°	928	951	921
70°	795	799	777
75°	630	629	604
80°	422	411	395
85°	228	228	213

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 1282 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	50.1	3.7
10°-20°	142.1	10.6
20°-30°	212.8	15.8
30°-40°	252.2	18.8
40°-50°	252.7	18.8
50°-60°	214.5	16.0
60°-70°	144.6	10.8
70°-80°	63.6	4.7
80°-90°	10.3	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°	405.0	30.2
0°-40°	657.3	48.9
0°-60°	1124.5	83.7
0°-90°	1343.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1343.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	533	533	533	533	533	
5°	529	528	529	528	540	50
15°	507	501	504	506	507	141
25°	453	455	463	469	468	209
35°	394	395	405	414	414	245
45°	317	323	328	337	329	245
55°	237	236	242	240	240	211
65°	146	144	149	144	145	145
75°	61	59	60	56	58	65
85°	7	7	7	7	7	11
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	532.9	532.9	532.9	532.9	532.9
2.5°	537.5	533.4	529.6	534.0	536.7
5°	529.1	527.8	529.3	527.7	540.4
7.5°	518.2	523.0	525.7	524.0	524.7
10°	512.4	510.8	516.9	521.2	520.6
12.5°	506.2	508.7	509.1	513.7	514.1
15°	506.6	500.7	503.8	506.4	506.7
17.5°	486.9	493.2	495.4	501.4	493.9
20°	484.5	479.9	484.5	490.6	489.7
22.5°	469.7	464.5	474.5	479.9	479.5
25°	452.9	455.4	462.8	468.9	467.9
27.5°	438.2	441.1	451.7	460.0	454.6
30°	426.8	425.4	434.3	441.8	445.9
32.5°	406.5	411.8	422.2	429.6	425.7
35°	394.2	395.4	404.6	413.9	413.6
37.5°	372.7	378.1	391.0	393.6	391.2
40°	354.3	359.8	371.4	374.2	373.0
42.5°	340.8	341.7	351.7	354.9	349.8
45°	317.2	323.1	328.5	336.9	328.9
47.5°	297.1	299.8	311.4	313.7	309.5
50°	278.9	279.8	291.4	288.6	285.9
52.5°	255.9	260.0	266.5	266.0	262.8
55°	237.1	235.5	241.7	240.0	240.0
57.5°	214.5	217.2	222.3	219.7	215.5
60°	193.3	193.3	195.2	192.2	191.7
62.5°	169.7	170.5	170.9	167.3	173.2
65°	145.7	143.7	149.4	143.7	144.6
67.5°	123.6	124.5	124.0	120.4	121.8
70°	101.1	102.4	101.5	97.4	98.7
72.5°	80.6	79.1	80.1	75.0	77.3
75°	60.6	59.4	60.5	56.2	58.1
77.5°	41.3	42.2	41.6	39.3	40.6
80°	27.2	26.5	26.5	25.2	25.5
82.5°	15.9	15.1	14.9	14.5	15.1
85°	7.4	7.2	7.4	7.2	6.9
87.5°	2.7	2.8	2.8	2.6	2.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)