

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: P558686

Luminaire Tested: FSR-12-1-LD4-1LO-35-UNV-82-97-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P558686
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-82-97-EDD-90
Description: 1X1 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 446.0 lumens
Efficiency: N/A
Efficacy: 76.9 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

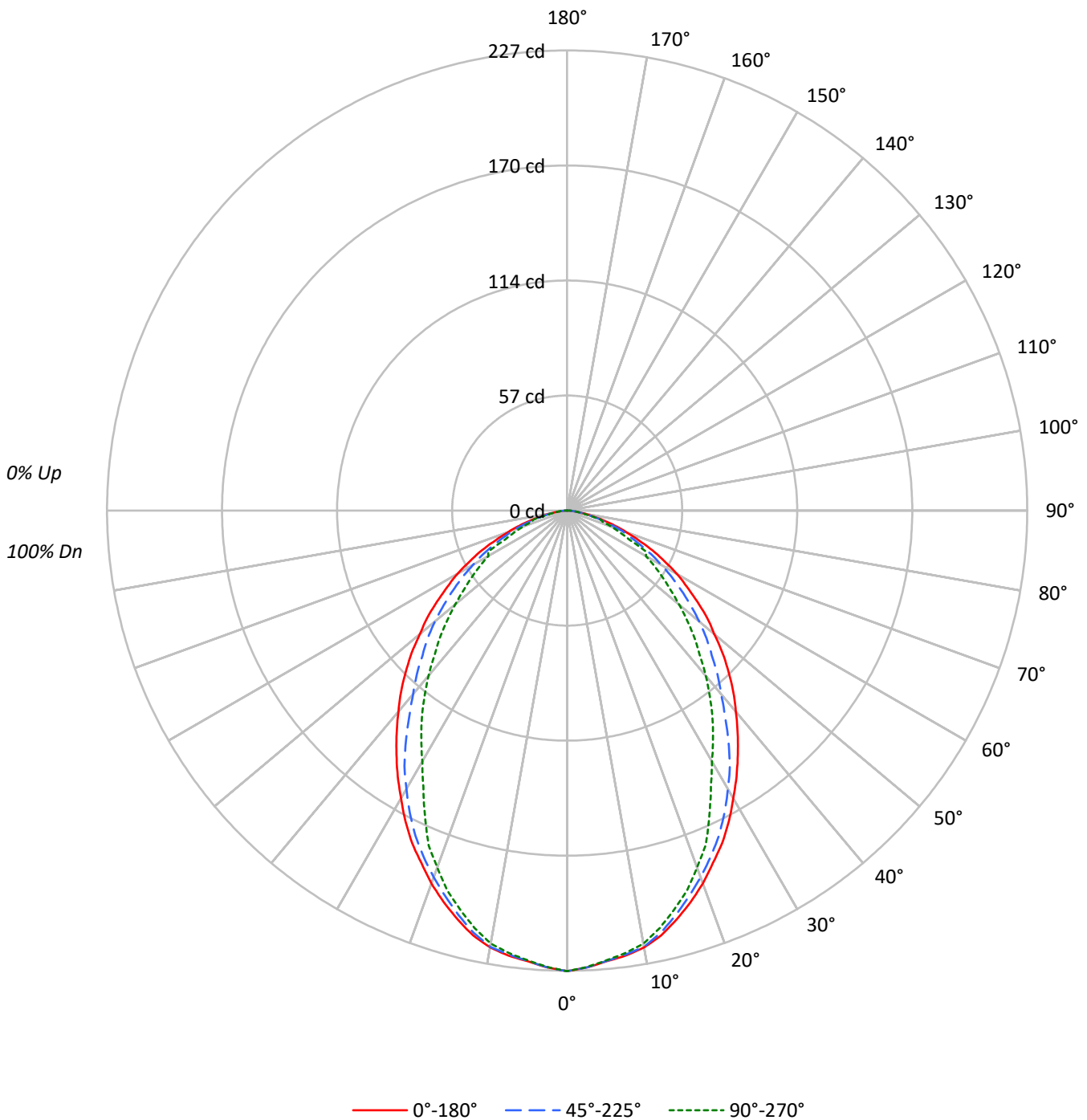
Input Watts (W): 5.8
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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			
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	47	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°	2446	2446	2446
5°	2412	2410	2406
10°	2391	2388	2371
15°	2327	2303	2271
20°	2242	2205	2145
25°	2150	2102	1972
30°	2037	1971	1776
35°	1929	1823	1643
40°	1820	1661	1495
45°	1716	1536	1352
50°	1587	1425	1206
55°	1469	1291	1079
60°	1345	1154	967
65°	1184	1011	856
70°	976	884	727
75°	774	678	711
80°	521	490	459
85°	321	395	457

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1716 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	21.1	4.7
10°-20°	58.0	13.0
20°-30°	80.3	18.0
30°-40°	85.7	19.2
40°-50°	78.2	17.5
50°-60°	61.2	13.7
60°-70°	39.9	8.9
70°-80°	17.7	4.0
80°-90°	3.8	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°	159.5	35.8
0°-40°	245.2	55.0
0°-60°	384.6	86.2
0°-90°	446.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	446.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	227	227	227	227	227	
5°	223	223	223	223	223	21
15°	209	209	207	205	204	59
25°	181	180	177	171	166	83
35°	147	146	139	128	125	92
45°	113	110	101	92	89	87
55°	78	76	69	61	58	70
65°	46	44	40	40	34	46
75°	19	17	16	16	17	20
85°	3	3	3	3	4	4
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	227.2	227.2	227.2	227.2	227.2
2.5°	225.6	225.6	225.6	225.3	225.3
5°	223.2	223.0	223.0	222.7	222.7
7.5°	221.4	221.1	220.9	220.6	220.1
10°	218.8	218.8	218.5	217.2	216.9
12.5°	214.6	214.3	213.3	211.4	210.9
15°	208.8	208.8	206.7	204.6	203.8
17.5°	202.5	202.2	199.6	197.5	196.5
20°	195.7	195.1	192.5	189.1	187.3
22.5°	188.1	188.1	184.9	180.4	178.6
25°	181.0	179.9	177.0	170.7	166.0
27.5°	172.8	171.2	168.1	159.2	153.6
30°	163.9	163.1	158.6	147.1	142.9
32.5°	155.5	154.2	149.4	137.4	133.9
35°	146.8	145.8	138.7	128.2	125.0
37.5°	138.2	136.8	127.9	119.5	115.6
40°	129.5	127.9	118.2	110.6	106.4
42.5°	121.3	119.2	109.8	101.6	96.9
45°	112.7	110.3	100.9	92.5	88.8
47.5°	104.0	101.9	93.2	84.6	80.4
50°	94.8	93.0	85.1	76.4	72.0
52.5°	87.2	84.3	76.7	68.0	64.3
55°	78.3	75.9	68.8	60.7	57.5
57.5°	70.1	67.8	61.2	53.6	51.0
60°	62.5	59.1	53.6	47.0	44.9
62.5°	54.1	51.5	46.8	41.2	43.9
65°	46.5	43.9	39.7	40.4	33.6
67.5°	38.1	36.8	33.1	29.4	28.4
70°	31.0	29.4	28.1	24.2	23.1
72.5°	24.7	23.1	21.3	19.2	18.4
75°	18.6	17.3	16.3	15.5	17.1
77.5°	12.9	12.3	11.6	10.8	10.5
80°	8.4	8.1	7.9	7.6	7.4
82.5°	5.0	5.0	5.0	5.0	5.0
85°	2.6	2.9	3.2	3.4	3.7
87.5°	1.6	1.6	1.8	2.1	2.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)