

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: P558575

Luminaire Tested: FSR-12-1-LD4-1HI-40-UNV-93-97-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P558575
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-LD4-1HI-40-UNV-93-97-EDD
Description: 1X1 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .375 CLEAR TEMPER
GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

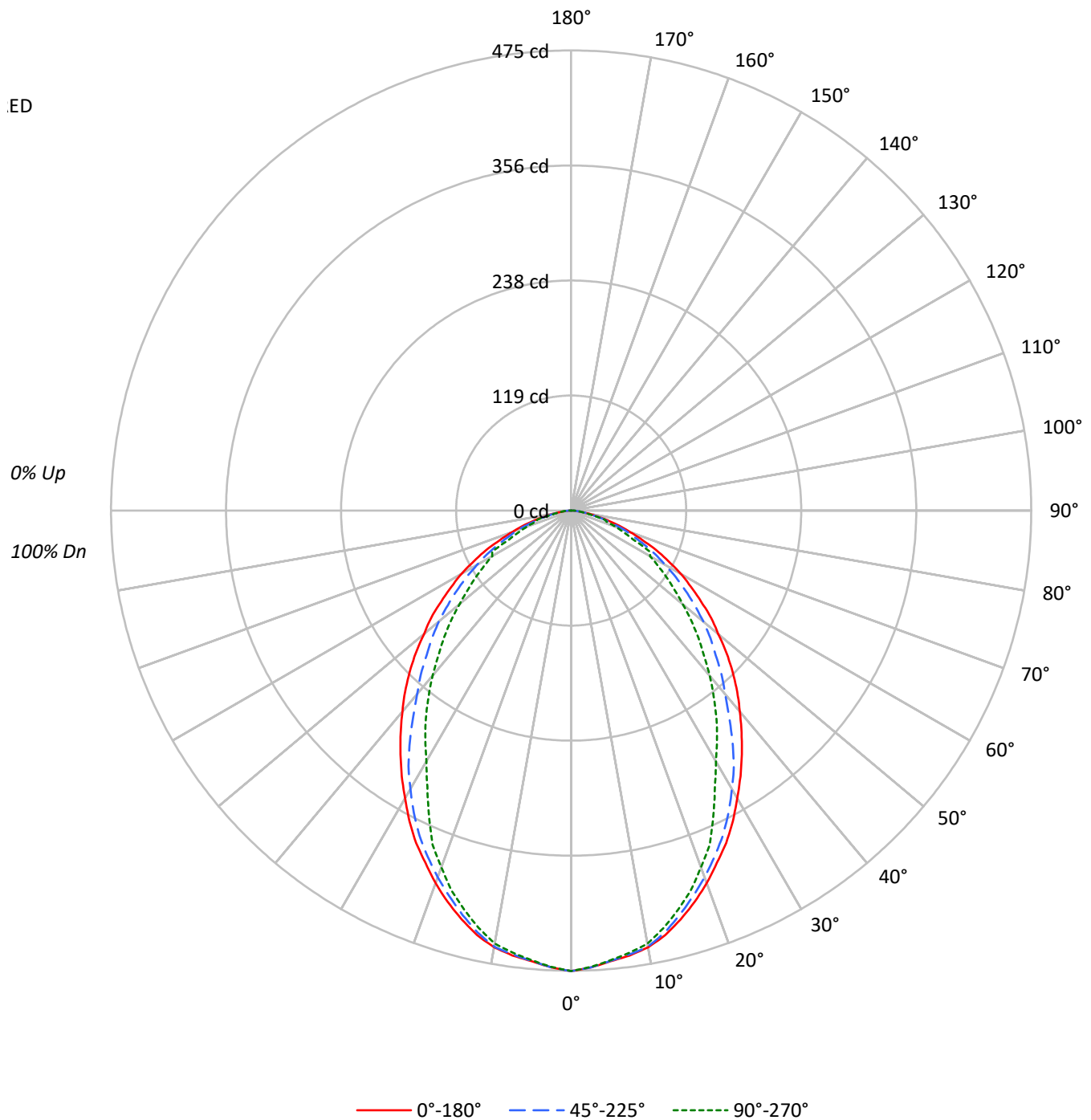
Lumens per Lamp: N/A
Luminaire Lumens: 933.0 lumens
Efficiency: N/A
Efficacy: 86.4 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 10.8
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	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°	5116	5116	5116
5°	5046	5041	5034
10°	5003	4996	4960
15°	4868	4819	4752
20°	4688	4613	4487
25°	4497	4398	4124
30°	4261	4125	3715
35°	4035	3812	3436
40°	3806	3473	3126
45°	3588	3212	2827
50°	3321	2981	2520
55°	3072	2702	2258
60°	2816	2413	2024
65°	2476	2114	1791
70°	2039	1851	1520
75°	1622	1418	1485
80°	1091	1023	955
85°	679	815	951

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3588 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	44.2	4.7
10°-20°	121.4	13.0
20°-30°	168.1	18.0
30°-40°	179.2	19.2
40°-50°	163.5	17.5
50°-60°	128.1	13.7
60°-70°	83.5	8.9
70°-80°	37.0	4.0
80°-90°	7.9	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°	333.7	35.8
0°-40°	513.0	55.0
0°-60°	804.6	86.2
0°-90°	933.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	933.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	475	475	475	475	475	
5°	467	466	466	466	466	44
15°	437	437	432	428	426	123
25°	379	376	370	357	347	174
35°	307	305	290	268	262	192
45°	236	231	211	193	186	182
55°	164	159	144	127	120	147
65°	97	92	83	85	70	96
75°	39	36	34	32	36	42
85°	6	6	7	7	8	8
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	475.3	475.3	475.3	475.3	475.3
2.5°	472.0	472.0	472.0	471.4	471.4
5°	467.0	466.5	466.5	465.9	465.9
7.5°	463.2	462.6	462.1	461.5	460.4
10°	457.7	457.7	457.1	454.4	453.8
12.5°	448.9	448.3	446.1	442.3	441.2
15°	436.8	436.8	432.4	428.0	426.4
17.5°	423.6	423.1	417.6	413.2	411.0
20°	409.3	408.2	402.7	395.6	391.7
22.5°	393.4	393.4	386.8	377.5	373.6
25°	378.6	376.4	370.3	357.1	347.2
27.5°	361.5	358.2	351.6	333.0	321.4
30°	342.8	341.2	331.9	307.7	298.9
32.5°	325.3	322.5	312.6	287.4	280.2
35°	307.1	304.9	290.1	268.1	261.5
37.5°	289.0	286.3	267.6	250.0	241.7
40°	270.9	267.6	247.2	231.3	222.5
42.5°	253.8	249.4	229.7	212.6	202.7
45°	235.7	230.8	211.0	193.4	185.7
47.5°	217.6	213.2	195.0	176.9	168.1
50°	198.3	194.5	178.0	159.9	150.5
52.5°	182.4	176.4	160.4	142.3	134.6
55°	163.7	158.8	144.0	126.9	120.3
57.5°	146.7	141.8	128.0	112.1	106.6
60°	130.8	123.6	112.1	98.3	94.0
62.5°	113.2	107.7	97.8	86.3	91.8
65°	97.2	91.8	83.0	84.6	70.3
67.5°	79.7	76.9	69.2	61.5	59.3
70°	64.8	61.5	58.8	50.5	48.3
72.5°	51.6	48.3	44.5	40.1	38.5
75°	39.0	36.3	34.1	32.4	35.7
77.5°	26.9	25.8	24.2	22.5	22.0
80°	17.6	17.0	16.5	15.9	15.4
82.5°	10.4	10.4	10.4	10.4	10.4
85°	5.5	6.0	6.6	7.1	7.7
87.5°	3.3	3.3	3.8	4.4	4.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)