

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: P558680

Luminaire Tested: FSR-12-1-LD4-1LO-35-UNV-82-88-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P558680
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-82-88-EDD-90
Description: 1X1 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 386.0 lumens
Efficiency: N/A
Efficacy: 66.6 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

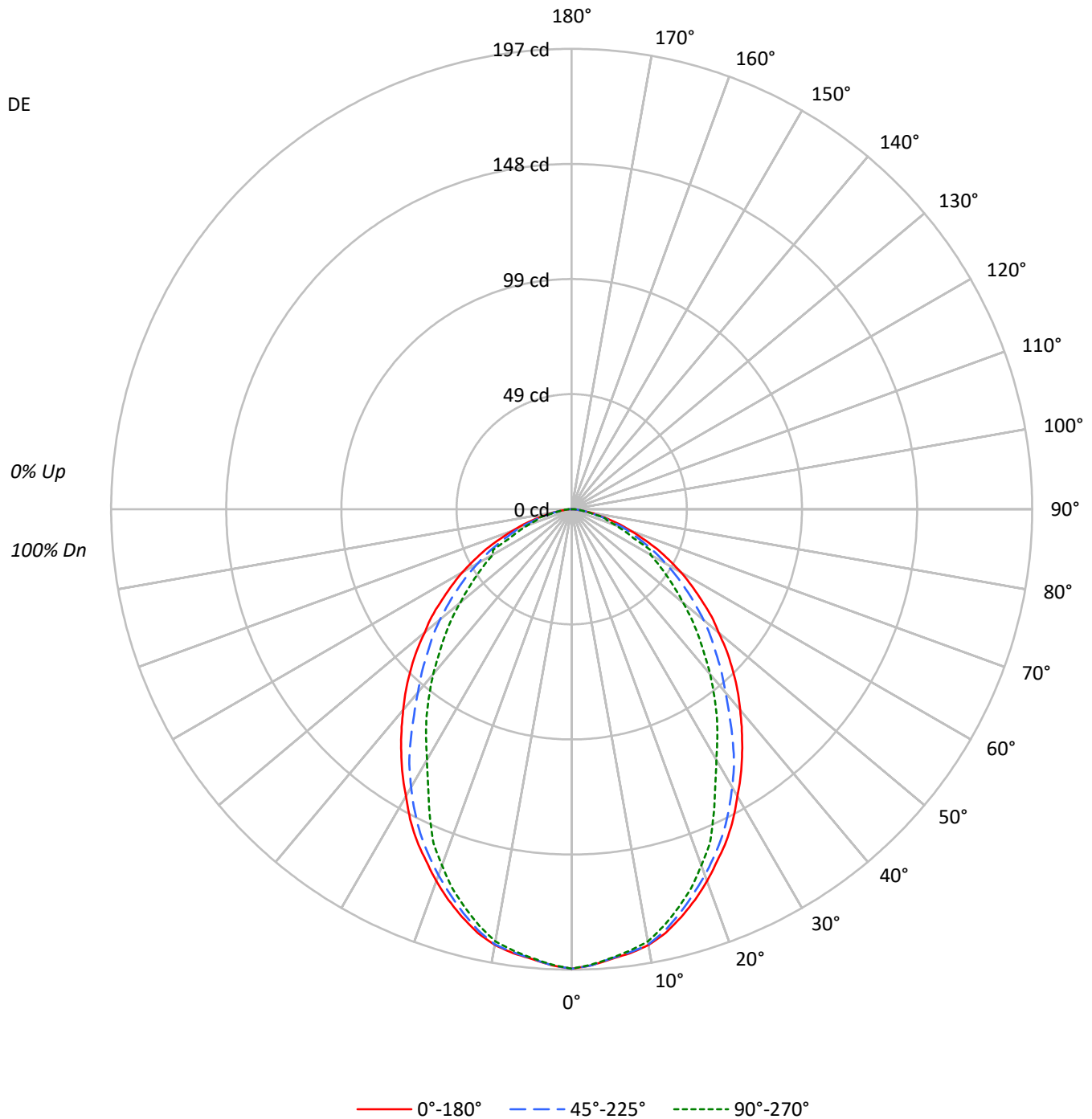
Input Watts (W): 5.8
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	2116	2116	2116
5°	2088	2085	2083
10°	2069	2067	2053
15°	2014	1994	1966
20°	1939	1908	1857
25°	1860	1820	1707
30°	1762	1707	1537
35°	1670	1577	1422
40°	1575	1437	1294
45°	1484	1329	1169
50°	1375	1232	1043
55°	1270	1118	935
60°	1165	999	837
65°	1024	874	741
70°	843	765	629
75°	670	586	616
80°	453	422	397
85°	284	333	395

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1484 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	18.3	4.7
10°-20°	50.2	13.0
20°-30°	69.5	18.0
30°-40°	74.2	19.2
40°-50°	67.7	17.5
50°-60°	53.0	13.7
60°-70°	34.5	8.9
70°-80°	15.3	4.0
80°-90°	3.3	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°	138.1	35.8
0°-40°	212.2	55.0
0°-60°	332.9	86.2
0°-90°	386.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	386.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	197	197	197	197	197	
5°	193	193	193	193	193	18
15°	181	181	179	177	176	51
25°	157	156	153	148	144	72
35°	127	126	120	111	108	79
45°	98	96	87	80	77	75
55°	68	66	60	52	50	61
65°	40	38	34	35	29	40
75°	16	15	14	13	15	17
85°	2	2	3	3	3	3
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	196.6	196.6	196.6	196.6	196.6
2.5°	195.3	195.3	195.3	195.0	195.0
5°	193.2	193.0	193.0	192.8	192.8
7.5°	191.6	191.4	191.2	190.9	190.5
10°	189.3	189.3	189.1	188.0	187.8
12.5°	185.7	185.5	184.6	183.0	182.5
15°	180.7	180.7	178.9	177.1	176.4
17.5°	175.3	175.0	172.8	170.9	170.0
20°	169.3	168.9	166.6	163.7	162.1
22.5°	162.8	162.8	160.0	156.2	154.6
25°	156.6	155.7	153.2	147.8	143.7
27.5°	149.6	148.2	145.5	137.7	133.0
30°	141.8	141.2	137.3	127.3	123.7
32.5°	134.6	133.4	129.3	118.9	115.9
35°	127.1	126.2	120.0	110.9	108.2
37.5°	119.6	118.4	110.7	103.4	100.0
40°	112.1	110.7	102.3	95.7	92.1
42.5°	105.0	103.2	95.0	88.0	83.9
45°	97.5	95.5	87.3	80.0	76.8
47.5°	90.0	88.2	80.7	73.2	69.6
50°	82.1	80.5	73.6	66.1	62.3
52.5°	75.5	73.0	66.4	58.9	55.7
55°	67.7	65.7	59.6	52.5	49.8
57.5°	60.7	58.6	53.0	46.4	44.1
60°	54.1	51.1	46.4	40.7	38.9
62.5°	46.8	44.6	40.5	35.7	38.0
65°	40.2	38.0	34.3	35.0	29.1
67.5°	33.0	31.8	28.6	25.5	24.5
70°	26.8	25.5	24.3	20.9	20.0
72.5°	21.4	20.0	18.4	16.6	15.9
75°	16.1	15.0	14.1	13.4	14.8
77.5°	11.1	10.7	10.0	9.3	9.1
80°	7.3	7.0	6.8	6.6	6.4
82.5°	4.3	4.3	4.3	4.3	4.3
85°	2.3	2.5	2.7	3.0	3.2
87.5°	1.4	1.4	1.6	1.8	2.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)