

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: P559941

Luminaire Tested: FSR-12-2-LD4-1LO-50-UNV-81-86-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559941
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-12-2-LD4-1LO-50-UNV-81-86-EDD
Description: 1X2 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

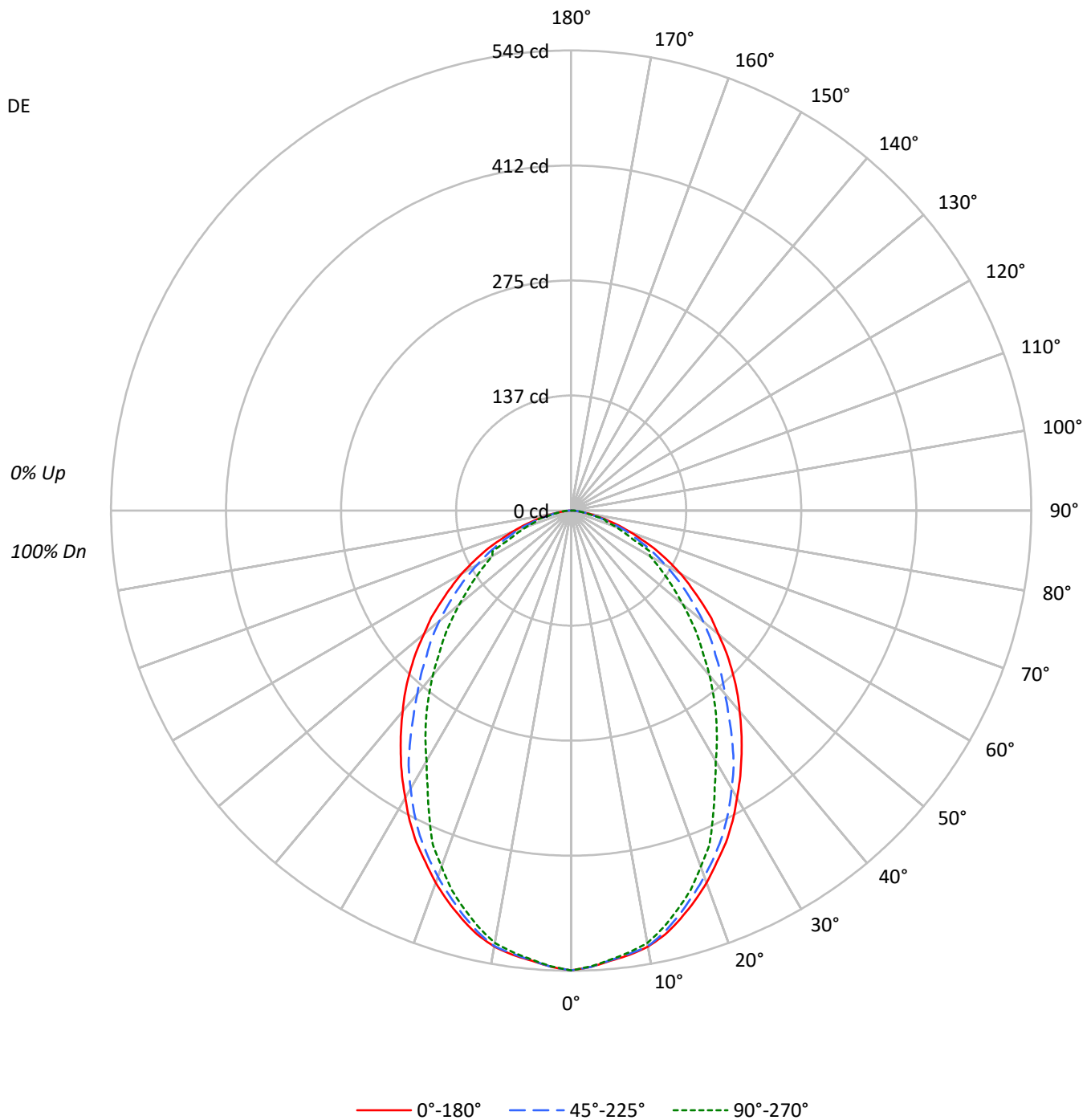
Lumens per Lamp: N/A
Luminaire Lumens: 1077.0 lumens
Efficiency: N/A
Efficacy: 92.1 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

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	50	30	10	0																			
RCR																																														
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100																												
1	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87																												
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75																												
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65																												
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56																												
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50																												
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44																												
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40																												
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36																												
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33																												
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30																												

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2953	2953	2953
5°	2912	2909	2905
10°	2887	2884	2863
15°	2809	2781	2742
20°	2706	2663	2590
25°	2595	2539	2380
30°	2460	2381	2144
35°	2329	2200	1984
40°	2197	2005	1805
45°	2071	1853	1632
50°	1917	1721	1455
55°	1773	1559	1303
60°	1624	1393	1168
65°	1430	1220	1034
70°	1177	1068	878
75°	936	817	857
80°	629	589	552
85°	389	469	550

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2071 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	51.1	4.7
10°-20°	140.2	13.0
20°-30°	194.0	18.0
30°-40°	206.9	19.2
40°-50°	188.7	17.5
50°-60°	147.9	13.7
60°-70°	96.4	8.9
70°-80°	42.7	4.0
80°-90°	9.2	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°	385.2	35.8
0°-40°	592.1	55.0
0°-60°	928.8	86.2
0°-90°	1077.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1077.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	549	549	549	549	549	
5°	539	538	538	538	538	51
15°	504	504	499	494	492	142
25°	437	434	428	412	401	201
35°	354	352	335	310	302	222
45°	272	266	244	223	214	210
55°	189	183	166	146	139	170
65°	112	106	96	98	81	111
75°	45	42	39	37	41	48
85°	6	7	8	8	9	9
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	548.6	548.6	548.6	548.6	548.6
2.5°	544.8	544.8	544.8	544.2	544.2
5°	539.1	538.5	538.5	537.8	537.8
7.5°	534.7	534.0	533.4	532.8	531.5
10°	528.3	528.3	527.7	524.5	523.9
12.5°	518.2	517.5	515.0	510.6	509.3
15°	504.2	504.2	499.1	494.1	492.2
17.5°	489.0	488.4	482.0	476.9	474.4
20°	472.5	471.2	464.9	456.6	452.2
22.5°	454.1	454.1	446.5	435.7	431.3
25°	437.0	434.4	427.5	412.2	400.8
27.5°	417.3	413.5	405.9	384.3	371.0
30°	395.8	393.9	383.1	355.2	345.0
32.5°	375.5	372.3	360.9	331.7	323.5
35°	354.5	352.0	334.9	309.5	301.9
37.5°	333.6	330.4	308.9	288.6	279.1
40°	312.7	308.9	285.4	267.0	256.9
42.5°	293.0	287.9	265.1	245.4	234.0
45°	272.1	266.4	243.5	223.2	214.4
47.5°	251.2	246.1	225.2	204.2	194.1
50°	229.0	224.5	205.5	184.6	173.8
52.5°	210.6	203.6	185.2	164.3	155.4
55°	189.0	183.3	166.2	146.5	138.9
57.5°	169.3	163.6	147.8	129.4	123.0
60°	150.9	142.7	129.4	113.5	108.5
62.5°	130.7	124.3	112.9	99.6	105.9
65°	112.3	105.9	95.8	97.7	81.2
67.5°	92.0	88.8	79.9	71.0	68.5
70°	74.8	71.0	67.9	58.3	55.8
72.5°	59.6	55.8	51.4	46.3	44.4
75°	45.0	41.9	39.3	37.4	41.2
77.5°	31.1	29.8	27.9	26.0	25.4
80°	20.3	19.7	19.0	18.4	17.8
82.5°	12.1	12.1	12.1	12.1	12.1
85°	6.3	7.0	7.6	8.2	8.9
87.5°	3.8	3.8	4.4	5.1	5.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)