

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: P559176

Luminaire Tested: FSR-12-1-LD4-2HI-50-UNV-81-88-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559176
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-LD4-2HI-50-UNV-81-88-EDD-90
Description: 1X1 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1384.0 lumens
Efficiency: N/A
Efficacy: 64.1 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

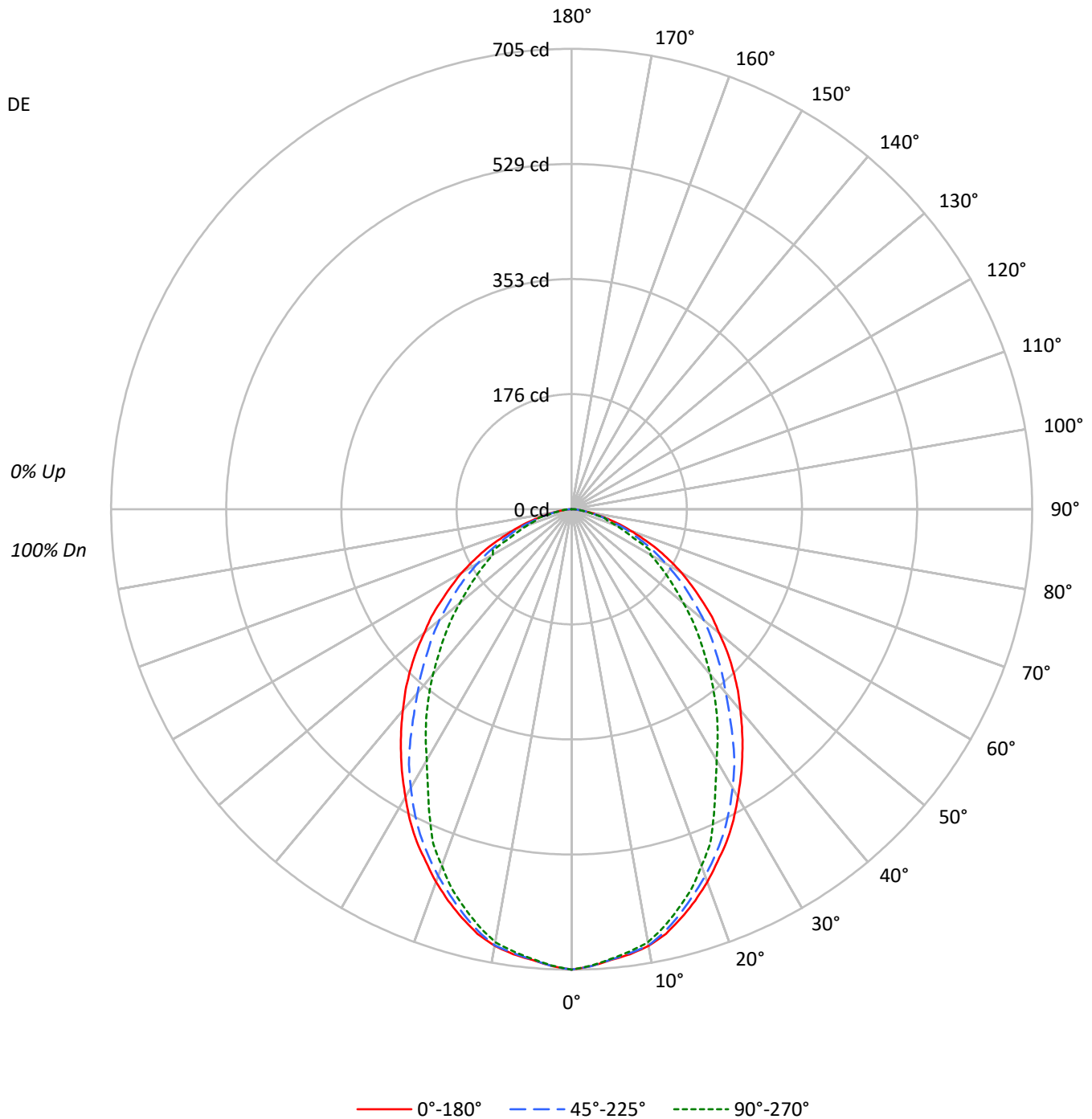
Input Watts (W): 21.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	7589	7589	7589
5°	7486	7477	7467
10°	7420	7412	7358
15°	7220	7148	7048
20°	6955	6843	6656
25°	6669	6524	6118
30°	6321	6119	5511
35°	5987	5654	5097
40°	5646	5154	4638
45°	5322	4765	4194
50°	4927	4423	3739
55°	4558	4007	3350
60°	4176	3580	3001
65°	3675	3135	2656
70°	3028	2744	2257
75°	2408	2100	2204
80°	1618	1519	1413
85°	1013	1210	1408

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5322 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	65.6	4.7
10°-20°	180.1	13.0
20°-30°	249.3	18.0
30°-40°	265.9	19.2
40°-50°	242.5	17.5
50°-60°	190.0	13.7
60°-70°	123.9	8.9
70°-80°	54.9	4.0
80°-90°	11.8	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°	495.1	35.8
0°-40°	760.9	55.0
0°-60°	1193.5	86.2
0°-90°	1384.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1384.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	705	705	705	705	705	
5°	693	692	692	691	691	66
15°	648	648	641	635	632	182
25°	562	558	549	530	515	258
35°	456	452	430	398	388	285
45°	350	342	313	287	276	269
55°	243	236	214	188	178	218
65°	144	136	123	126	104	142
75°	58	54	50	48	53	62
85°	8	9	10	11	11	11
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	705.0	705.0	705.0	705.0	705.0
2.5°	700.1	700.1	700.1	699.3	699.3
5°	692.8	692.0	692.0	691.1	691.1
7.5°	687.1	686.2	685.4	684.6	683.0
10°	678.9	678.9	678.1	674.0	673.2
12.5°	665.9	665.1	661.8	656.1	654.5
15°	647.9	647.9	641.4	634.9	632.5
17.5°	628.4	627.6	619.4	612.9	609.6
20°	607.2	605.6	597.4	586.8	581.1
22.5°	583.6	583.6	573.8	559.9	554.2
25°	561.5	558.3	549.3	529.8	515.1
27.5°	536.3	531.4	521.6	493.9	476.8
30°	508.6	506.1	492.3	456.4	443.4
32.5°	482.5	478.4	463.7	426.3	415.7
35°	455.6	452.3	430.3	397.7	387.9
37.5°	428.7	424.6	396.9	370.8	358.6
40°	401.8	396.9	366.8	343.1	330.1
42.5°	376.5	370.0	340.7	315.4	300.7
45°	349.6	342.3	313.0	286.9	275.5
47.5°	322.7	316.2	289.3	262.4	249.4
50°	294.2	288.5	264.1	237.2	223.3
52.5°	270.6	261.6	238.0	211.1	199.7
55°	242.9	235.5	213.5	188.3	178.5
57.5°	217.6	210.3	189.9	166.3	158.1
60°	194.0	183.4	166.3	145.9	139.4
62.5°	167.9	159.7	145.1	128.0	136.1
65°	144.3	136.1	123.1	125.5	104.3
67.5°	118.2	114.1	102.7	91.3	88.0
70°	96.2	91.3	87.2	75.0	71.7
72.5°	76.6	71.7	66.0	59.5	57.1
75°	57.9	53.8	50.5	48.1	53.0
77.5°	39.9	38.3	35.9	33.4	32.6
80°	26.1	25.3	24.5	23.6	22.8
82.5°	15.5	15.5	15.5	15.5	15.5
85°	8.2	9.0	9.8	10.6	11.4
87.5°	4.9	4.9	5.7	6.5	7.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)