

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: P589849

Luminaire Tested: FSR-24-2-LD4-1HI-35-UNV-80-88-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P589849
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-135-1)
Test Lab: INNOVATION CENTER
Issue Date: 12/8/2021
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: FAIL-SAFE
Catalog Number: FSR-24-2-LD4-1HI-35-UNV-80-88-EDD
Description: 2X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .500 CLEAR PC ENVIRON
SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2021.0 lumens
Efficiency: N/A
Efficacy: 93.6 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

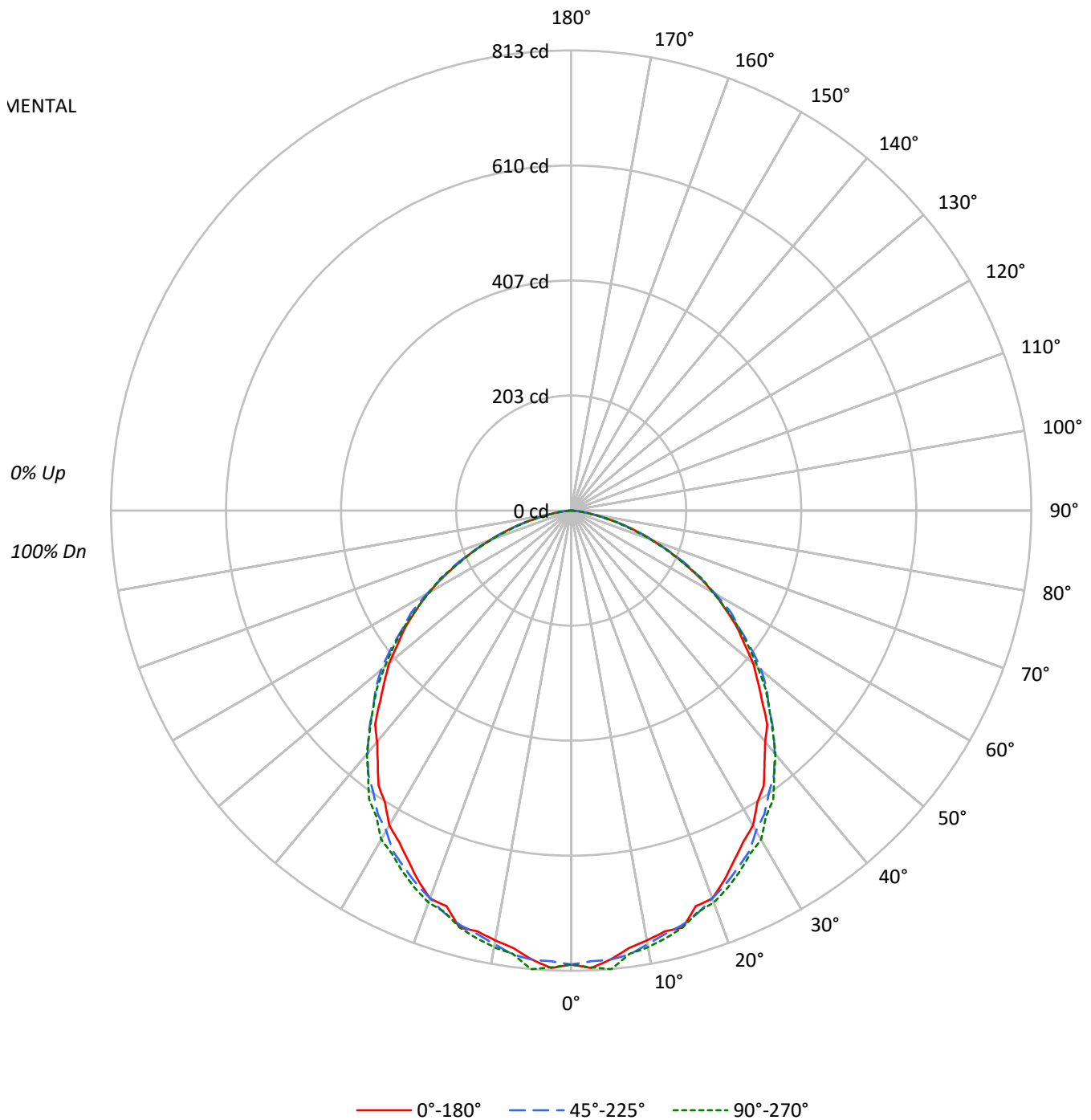
Input Watts (W): 21.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	110	105	101	98	107	103	100	96	99	96	93	95	93	90	91	90	88	86
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75	73
3	92	82	74	68	89	80	73	67	77	71	66	75	69	65	72	68	64	62
4	84	73	64	58	82	71	64	58	69	62	57	67	61	56	65	59	55	53
5	78	65	57	50	76	64	56	50	62	55	49	60	54	49	58	53	48	46
6	72	59	50	44	70	58	50	44	56	49	43	54	48	43	53	47	43	41
7	67	53	45	39	65	53	45	39	51	44	39	50	43	38	48	42	38	36
8	62	49	41	35	61	48	40	35	47	40	34	46	39	34	44	39	34	32
9	58	45	37	31	57	44	37	31	43	36	31	42	36	31	41	35	31	29
10	54	41	34	29	53	41	33	28	40	33	28	39	33	28	38	32	28	26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2158	2158	2158
5°	2151	2152	2197
10°	2107	2126	2140
15°	2124	2112	2124
20°	2088	2088	2110
25°	2024	2068	2091
30°	1996	2031	2085
35°	1949	2000	2045
40°	1873	1963	1972
45°	1816	1881	1884
50°	1757	1836	1801
55°	1674	1706	1694
60°	1565	1581	1552
65°	1396	1431	1386
70°	1197	1201	1168
75°	948	946	910
80°	635	618	594
85°	346	343	321

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 1929 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	75.4	3.7
10°-20°	213.8	10.6
20°-30°	320.3	15.8
30°-40°	379.6	18.8
40°-50°	380.3	18.8
50°-60°	322.8	16.0
60°-70°	217.6	10.8
70°-80°	95.6	4.7
80°-90°	15.5	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°	609.5	30.2
0°-40°	989.1	48.9
0°-60°	1692.2	83.7
0°-90°	2021.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2021.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	802	802	802	802	802	
5°	796	794	796	794	813	75
15°	762	754	758	762	762	212
25°	682	685	696	706	704	315
35°	593	595	609	623	622	368
45°	477	486	494	507	495	369
55°	357	354	364	361	361	317
65°	219	216	225	216	218	218
75°	91	89	91	85	88	98
85°	11	11	11	11	10	16
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	801.9	801.9	801.9	801.9	801.9
2.5°	808.8	802.7	797.0	803.6	807.7
5°	796.2	794.3	796.5	794.1	813.3
7.5°	779.8	787.0	791.1	788.5	789.7
10°	771.1	768.6	777.9	784.3	783.3
12.5°	761.8	765.5	766.1	773.0	773.6
15°	762.3	753.5	758.2	762.1	762.4
17.5°	732.7	742.2	745.5	754.5	743.3
20°	729.1	722.2	729.1	738.3	736.9
22.5°	706.8	699.1	714.0	722.2	721.6
25°	681.6	685.3	696.5	705.6	704.1
27.5°	659.4	663.8	679.7	692.2	684.2
30°	642.3	640.2	653.6	664.8	671.0
32.5°	611.8	619.7	635.4	646.5	640.6
35°	593.3	595.0	608.8	622.9	622.5
37.5°	569.9	569.0	588.4	592.3	588.7
40°	533.2	541.4	558.9	563.1	561.4
42.5°	512.8	514.3	529.3	534.1	526.4
45°	477.3	486.2	494.3	507.0	495.0
47.5°	447.1	451.2	468.6	472.0	465.7
50°	419.6	421.1	438.6	434.3	430.2
52.5°	385.2	391.3	401.1	400.3	395.4
55°	356.8	354.4	363.7	361.2	361.1
57.5°	322.7	326.9	334.5	330.6	324.3
60°	290.8	290.9	293.7	289.3	288.4
62.5°	255.3	256.6	257.2	251.7	260.6
65°	219.2	216.3	224.8	216.2	217.6
67.5°	185.9	187.4	186.6	181.2	183.3
70°	152.2	154.1	152.7	146.6	148.5
72.5°	121.3	119.1	120.5	112.9	116.4
75°	91.2	89.4	91.0	84.6	87.5
77.5°	62.1	63.6	62.5	59.1	61.1
80°	41.0	39.9	39.9	37.9	38.3
82.5°	23.9	22.8	22.5	21.8	22.8
85°	11.2	10.9	11.1	10.8	10.4
87.5°	4.0	4.1	4.1	3.9	3.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)