

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: P589864

Luminaire Tested: FSR-24-2-LD4-1HI-35-UNV-82-87-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P589864
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-82-87-EDD
Description: 2X2 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2087.0 lumens
Efficiency: N/A
Efficacy: 96.6 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

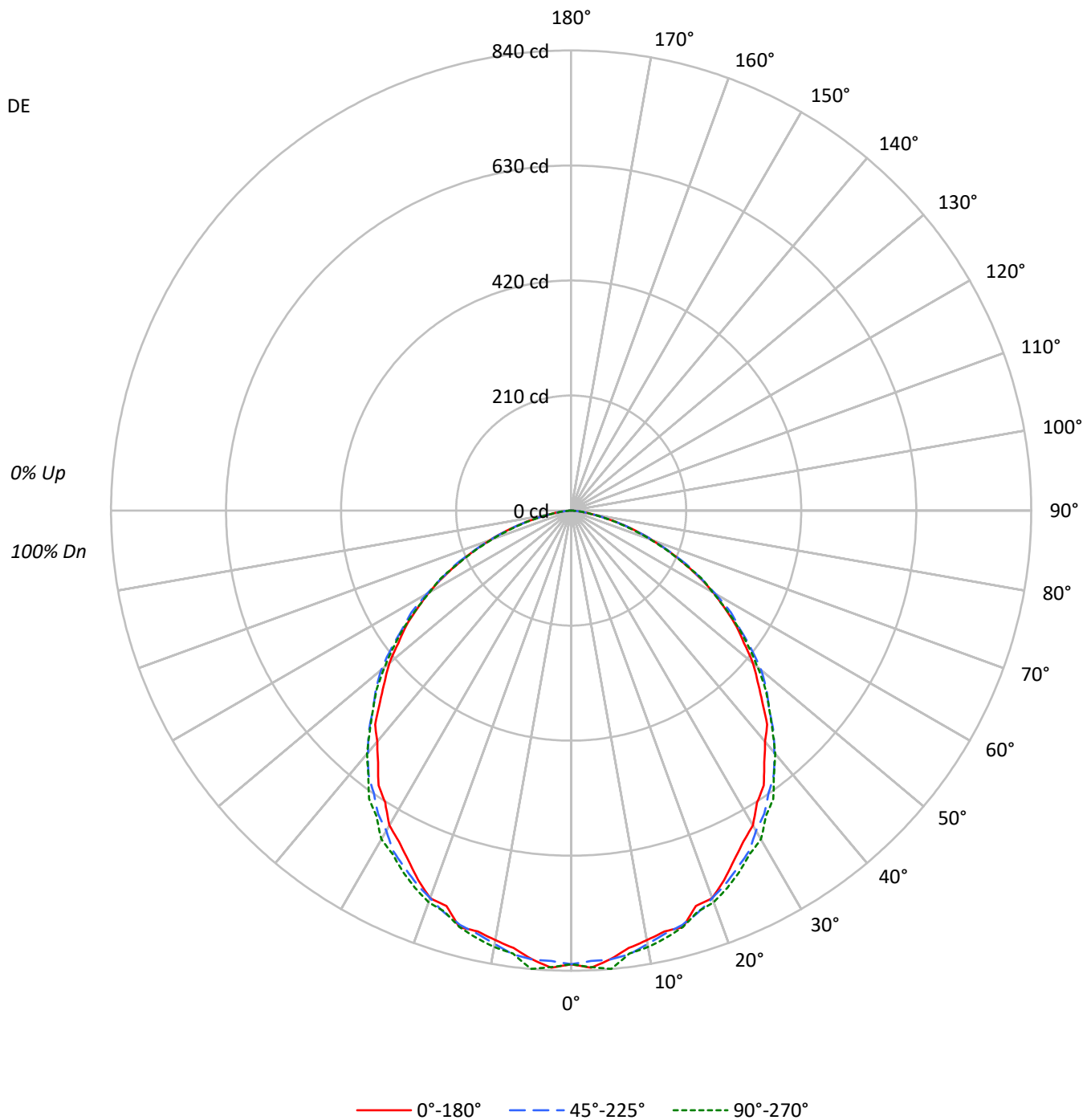
Input Watts (W): 21.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P589864

CATALOG NUMBER: FSR-24-2-LD4-1HI-35-UNV-82-87-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P589864

CATALOG NUMBER: FSR-24-2-LD4-1HI-35-UNV-82-87-EDD

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°	2228	2228	2228
5°	2221	2222	2269
10°	2176	2195	2210
15°	2193	2181	2193
20°	2156	2156	2179
25°	2090	2135	2159
30°	2061	2097	2153
35°	2012	2065	2112
40°	1934	2027	2036
45°	1876	1942	1945
50°	1814	1896	1860
55°	1728	1762	1749
60°	1616	1632	1603
65°	1441	1478	1431
70°	1237	1241	1206
75°	979	977	939
80°	656	638	614
85°	355	352	330

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 1993 cd/sqm

TEST NUMBER: P589864

CATALOG NUMBER: FSR-24-2-LD4-1HI-35-UNV-82-87-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	77.9	3.7
10°-20°	220.8	10.6
20°-30°	330.7	15.8
30°-40°	392.0	18.8
40°-50°	392.7	18.8
50°-60°	333.3	16.0
60°-70°	224.7	10.8
70°-80°	98.8	4.7
80°-90°	16.0	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
<hr/>		
0°-30°	629.4	30.2
0°-40°	1021.4	48.9
0°-60°	1747.4	83.7
0°-90°	2087.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2087.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	828	828	828	828	828	
5°	822	820	822	820	840	78
15°	787	778	783	787	787	219
25°	704	708	719	729	727	325
35°	613	614	629	643	643	380
45°	493	502	510	524	511	381
55°	368	366	376	373	373	328
65°	226	223	232	223	225	225
75°	94	92	94	87	90	101
85°	12	11	11	11	11	17
90°	0	0	0	0	0	



TEST NUMBER: P589864

CATALOG NUMBER: FSR-24-2-LD4-1HI-35-UNV-82-87-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	828.1	828.1	828.1	828.1	828.1
2.5°	835.2	828.9	823.0	829.9	834.1
5°	822.2	820.3	822.5	820.1	839.8
7.5°	805.3	812.7	816.9	814.3	815.5
10°	796.3	793.7	803.3	809.9	808.9
12.5°	786.7	790.5	791.1	798.2	798.9
15°	787.2	778.1	783.0	787.0	787.3
17.5°	756.6	766.5	769.8	779.1	767.6
20°	752.9	745.7	752.9	762.4	760.9
22.5°	729.9	721.9	737.3	745.7	745.2
25°	703.8	707.7	719.2	728.6	727.1
27.5°	681.0	685.4	701.9	714.8	706.5
30°	663.3	661.1	675.0	686.5	692.9
32.5°	631.8	639.9	656.1	667.6	661.5
35°	612.6	614.4	628.7	643.2	642.8
37.5°	579.2	587.6	607.6	611.7	607.9
40°	550.6	559.1	577.1	581.5	579.7
42.5°	529.6	531.1	546.6	551.6	543.6
45°	492.9	502.1	510.4	523.6	511.2
47.5°	461.7	465.9	483.9	487.4	480.9
50°	433.3	434.8	452.9	448.5	444.2
52.5°	397.7	404.0	414.2	413.3	408.3
55°	368.4	366.0	375.6	373.0	372.9
57.5°	333.3	337.5	345.4	341.4	334.9
60°	300.3	300.4	303.3	298.7	297.9
62.5°	263.7	264.9	265.6	259.9	269.1
65°	226.3	223.3	232.1	223.2	224.7
67.5°	192.0	193.5	192.7	187.1	189.2
70°	157.2	159.1	157.7	151.4	153.3
72.5°	125.3	123.0	124.5	116.5	120.2
75°	94.2	92.3	94.0	87.4	90.3
77.5°	64.1	65.6	64.6	61.0	63.1
80°	42.3	41.2	41.2	39.1	39.6
82.5°	24.7	23.5	23.2	22.6	23.5
85°	11.5	11.2	11.4	11.1	10.7
87.5°	4.2	4.3	4.3	4.1	3.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)