

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: P560040

Luminaire Tested: FSR-12-2-LD4-1STD-35-UNV-93-88-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560040
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-LD4-1STD-35-UNV-93-88-EDD-90
Description: 1X2 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1080.0 lumens
Efficiency: N/A
Efficacy: 65.1 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

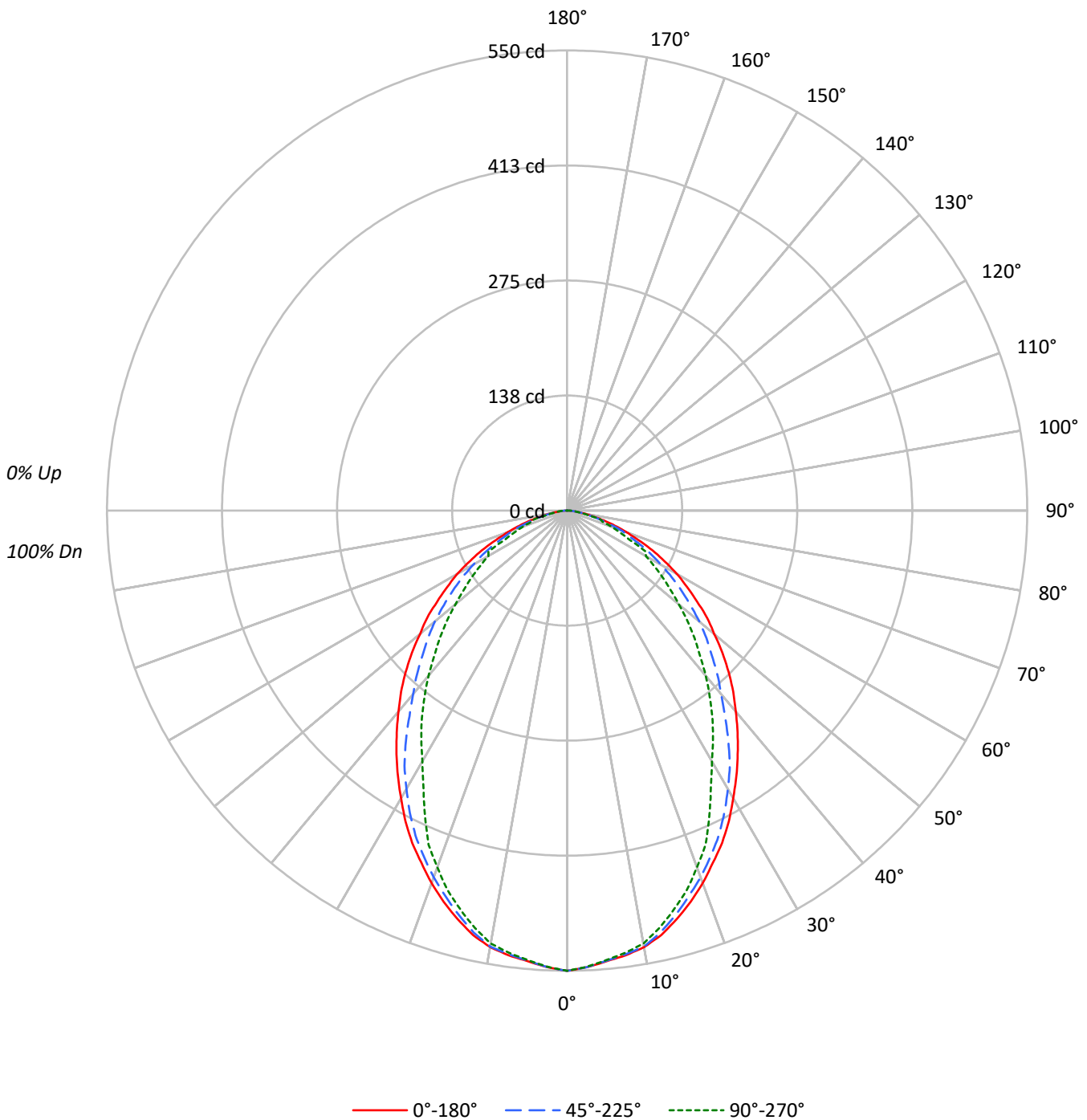
Input Watts (W): 16.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P560040

CATALOG NUMBER: FSR-12-2-LD4-1STD-35-UNV-93-88-EDD-90

Luminous Intensity Polar Plot





TEST NUMBER: P560040

CATALOG NUMBER: FSR-12-2-LD4-1STD-35-UNV-93-88-EDD-90

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	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°	2961	2961	2961
5°	2921	2917	2914
10°	2895	2892	2871
15°	2817	2789	2750
20°	2714	2670	2597
25°	2602	2546	2387
30°	2467	2387	2150
35°	2336	2206	1989
40°	2203	2011	1810
45°	2076	1859	1636
50°	1922	1726	1459
55°	1778	1563	1307
60°	1630	1396	1171
65°	1434	1223	1037
70°	1180	1072	881
75°	940	819	859
80°	632	592	552
85°	395	469	550

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2076 cd/sqm



TEST NUMBER: P560040

CATALOG NUMBER: FSR-12-2-LD4-1STD-35-UNV-93-88-EDD-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	51.2	4.7
10°-20°	140.5	13.0
20°-30°	194.6	18.0
30°-40°	207.5	19.2
40°-50°	189.3	17.5
50°-60°	148.3	13.7
60°-70°	96.6	8.9
70°-80°	42.8	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°	386.3	35.8
0°-40°	593.8	55.0
0°-60°	931.3	86.2
0°-90°	1080.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1080.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	550	550	550	550	550	
5°	541	540	540	539	539	51
15°	506	506	500	495	494	142
25°	438	436	429	413	402	201
35°	356	353	336	310	303	222
45°	273	267	244	224	215	210
55°	190	184	167	147	139	170
65°	113	106	96	98	81	111
75°	45	42	39	38	41	48
85°	6	7	8	8	9	9
90°	0	0	0	0	0	



TEST NUMBER: P560040

CATALOG NUMBER: FSR-12-2-LD4-1STD-35-UNV-93-88-EDD-90

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	550.1	550.1	550.1	550.1	550.1
2.5°	546.3	546.3	546.3	545.7	545.7
5°	540.6	540.0	540.0	539.3	539.3
7.5°	536.1	535.5	534.9	534.2	533.0
10°	529.8	529.8	529.1	526.0	525.3
12.5°	519.6	519.0	516.4	512.0	510.7
15°	505.6	505.6	500.5	495.4	493.5
17.5°	490.4	489.7	483.4	478.3	475.7
20°	473.8	472.5	466.2	457.9	453.5
22.5°	455.4	455.4	447.7	436.9	432.5
25°	438.2	435.7	428.7	413.4	402.0
27.5°	418.5	414.7	407.0	385.4	372.1
30°	396.9	395.0	384.1	356.2	346.0
32.5°	376.5	373.3	361.9	332.6	324.4
35°	355.5	353.0	335.8	310.4	302.7
37.5°	334.5	331.4	309.7	289.4	279.8
40°	313.5	309.7	286.2	267.8	257.6
42.5°	293.8	288.7	265.8	246.1	234.7
45°	272.8	267.1	244.2	223.9	215.0
47.5°	251.9	246.8	225.8	204.8	194.6
50°	229.6	225.1	206.1	185.1	174.3
52.5°	211.2	204.2	185.7	164.7	155.8
55°	189.5	183.8	166.6	146.9	139.3
57.5°	169.8	164.1	148.2	129.7	123.4
60°	151.4	143.1	129.7	113.8	108.8
62.5°	131.0	124.7	113.2	99.9	106.2
65°	112.6	106.2	96.0	97.9	81.4
67.5°	92.2	89.0	80.1	71.2	68.7
70°	75.0	71.2	68.1	58.5	56.0
72.5°	59.8	56.0	51.5	46.4	44.5
75°	45.2	42.0	39.4	37.5	41.3
77.5°	31.2	29.9	28.0	26.1	25.4
80°	20.4	19.7	19.1	18.4	17.8
82.5°	12.1	12.1	12.1	12.1	12.1
85°	6.4	7.0	7.6	8.3	8.9
87.5°	3.8	3.8	4.5	5.1	5.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)