

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: P589965

Luminaire Tested: FSR-24-2-LD4-1LO-35-UNV-93-84-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P589965
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-LD4-1LO-35-UNV-93-84-EDD
Description: 2X2 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1460.0 lumens
Efficiency: N/A
Efficacy: 124.8 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

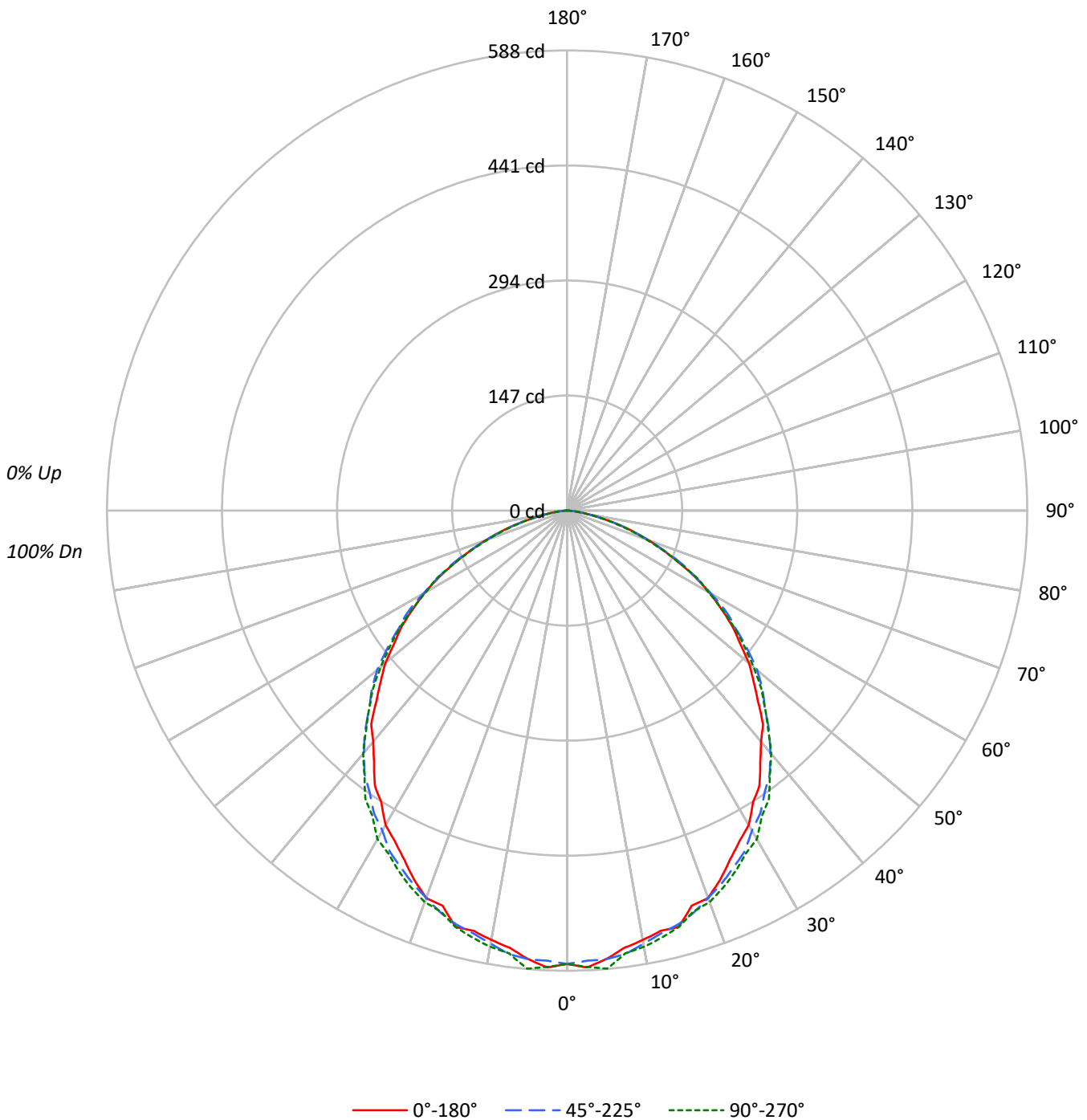
Input Watts (W): 11.7
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P589965

CATALOG NUMBER: FSR-24-2-LD4-1LO-35-UNV-93-84-EDD

Luminous Intensity Polar Plot



TEST NUMBER: P589965

CATALOG NUMBER: FSR-24-2-LD4-1LO-35-UNV-93-84-EDD

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				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°	1559	1559	1559
5°	1554	1554	1587
10°	1522	1535	1546
15°	1534	1526	1534
20°	1508	1508	1524
25°	1462	1494	1510
30°	1442	1467	1506
35°	1408	1445	1477
40°	1353	1418	1424
45°	1312	1359	1361
50°	1269	1326	1301
55°	1209	1233	1224
60°	1131	1142	1122
65°	1008	1034	1001
70°	865	868	844
75°	685	683	657
80°	459	446	429
85°	250	247	232

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 1394 cd/sqm



TEST NUMBER: P589965

CATALOG NUMBER: FSR-24-2-LD4-1LO-35-UNV-93-84-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	54.5	3.7
10°-20°	154.4	10.6
20°-30°	231.4	15.8
30°-40°	274.2	18.8
40°-50°	274.7	18.8
50°-60°	233.2	16.0
60°-70°	157.2	10.8
70°-80°	69.1	4.7
80°-90°	11.2	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°	440.3	30.2
0°-40°	714.5	48.9
0°-60°	1222.5	83.7
0°-90°	1460.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1460.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	579	579	579	579	579	
5°	575	574	575	574	588	54
15°	551	544	548	551	551	153
25°	492	495	503	510	509	228
35°	429	430	440	450	450	266
45°	345	351	357	366	358	267
55°	258	256	263	261	261	229
65°	158	156	162	156	157	157
75°	66	64	66	61	63	71
85°	8	8	8	8	8	12
90°	0	0	0	0	0	



TEST NUMBER: P589965

CATALOG NUMBER: FSR-24-2-LD4-1LO-35-UNV-93-84-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	579.3	579.3	579.3	579.3	579.3
2.5°	584.3	579.9	575.8	580.6	583.5
5°	575.2	573.8	575.4	573.7	587.5
7.5°	563.4	568.5	571.5	569.6	570.5
10°	557.1	555.3	561.9	566.6	565.9
12.5°	550.3	553.0	553.4	558.4	558.9
15°	550.7	544.4	547.7	550.6	550.8
17.5°	529.3	536.2	538.5	545.0	537.0
20°	526.7	521.7	526.7	533.4	532.3
22.5°	510.6	505.0	515.8	521.7	521.3
25°	492.4	495.1	503.1	509.7	508.7
27.5°	476.4	479.5	491.0	500.1	494.2
30°	464.0	462.5	472.2	480.3	484.7
32.5°	442.0	447.7	459.0	467.0	462.8
35°	428.6	429.8	439.8	450.0	449.7
37.5°	405.2	411.1	425.1	427.9	425.3
40°	385.2	391.1	403.7	406.8	405.5
42.5°	370.5	371.5	382.4	385.9	380.3
45°	344.8	351.2	357.1	366.3	357.6
47.5°	323.0	326.0	338.5	341.0	336.4
50°	303.1	304.2	316.8	313.8	310.8
52.5°	278.2	282.7	289.8	289.2	285.6
55°	257.7	256.0	262.8	261.0	260.9
57.5°	233.1	236.1	241.7	238.8	234.3
60°	210.1	210.2	212.2	209.0	208.4
62.5°	184.4	185.3	185.8	181.8	188.3
65°	158.3	156.2	162.4	156.2	157.2
67.5°	134.3	135.4	134.8	130.9	132.4
70°	109.9	111.3	110.3	105.9	107.3
72.5°	87.7	86.0	87.1	81.5	84.1
75°	65.9	64.5	65.7	61.1	63.2
77.5°	44.9	45.9	45.2	42.7	44.1
80°	29.6	28.8	28.8	27.4	27.7
82.5°	17.3	16.5	16.2	15.8	16.5
85°	8.1	7.9	8.0	7.8	7.5
87.5°	2.9	3.0	3.0	2.8	2.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)