

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: P560608

Luminaire Tested: FSR-12-2-LD4-2STD-35-UNV-93-84-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560608
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-LD4-2STD-35-UNV-93-84-EDD-90
Description: 1X2 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2558.0 lumens
Efficiency: N/A
Efficacy: 76.8 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

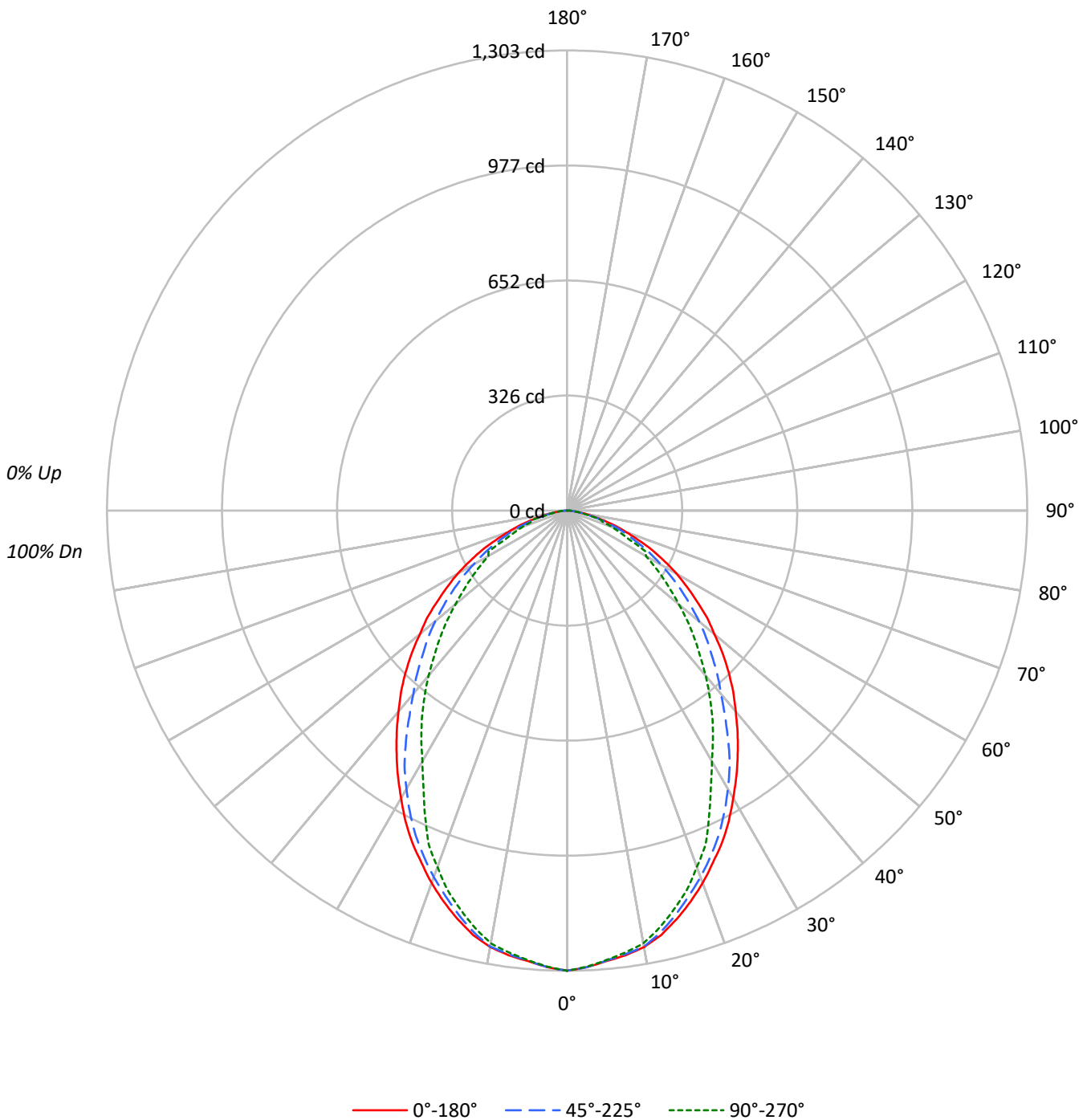
Input Watts (W): 33.3
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P560608

CATALOG NUMBER: FSR-12-2-LD4-2STD-35-UNV-93-84-EDD-90

Luminous Intensity Polar Plot





TEST NUMBER: P560608

CATALOG NUMBER: FSR-12-2-LD4-2STD-35-UNV-93-84-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	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°	7013	7013	7013
5°	6917	6909	6901
10°	6857	6849	6800
15°	6673	6605	6513
20°	6427	6324	6151
25°	6163	6029	5653
30°	5842	5654	5093
35°	5533	5226	4711
40°	5217	4763	4286
45°	4918	4402	3876
50°	4553	4087	3455
55°	4212	3704	3096
60°	3859	3308	2773
65°	3395	2897	2455
70°	2798	2537	2087
75°	2225	1942	2036
80°	1494	1401	1308
85°	932	1118	1303

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4918 cd/sqm



TEST NUMBER: P560608

CATALOG NUMBER: FSR-12-2-LD4-2STD-35-UNV-93-84-EDD-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	121.3	4.7
10°-20°	332.9	13.0
20°-30°	460.9	18.0
30°-40°	491.4	19.2
40°-50°	448.3	17.5
50°-60°	351.2	13.7
60°-70°	228.9	8.9
70°-80°	101.4	4.0
80°-90°	21.8	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°	915.0	35.8
0°-40°	1406.4	55.0
0°-60°	2205.9	86.2
0°-90°	2558.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2558.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1303	1303	1303	1303	1303	
5°	1280	1279	1279	1277	1277	122
15°	1198	1198	1186	1174	1169	337
25°	1038	1032	1015	979	952	476
35°	842	836	795	735	717	526
45°	646	633	578	530	509	498
55°	449	435	395	348	330	403
65°	267	252	228	232	193	263
75°	107	99	93	89	98	115
85°	15	17	18	20	21	21
90°	0	0	0	0	0	



TEST NUMBER: P560608

CATALOG NUMBER: FSR-12-2-LD4-2STD-35-UNV-93-84-EDD-90

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1303.0	1303.0	1303.0	1303.0	1303.0
2.5°	1294.0	1294.0	1294.0	1292.5	1292.5
5°	1280.4	1278.9	1278.9	1277.4	1277.4
7.5°	1269.9	1268.4	1266.9	1265.4	1262.3
10°	1254.8	1254.8	1253.3	1245.8	1244.3
12.5°	1230.7	1229.2	1223.2	1212.6	1209.6
15°	1197.6	1197.6	1185.5	1173.5	1168.9
17.5°	1161.4	1159.9	1144.8	1132.8	1126.8
20°	1122.2	1119.2	1104.2	1084.6	1074.0
22.5°	1078.6	1078.6	1060.5	1034.9	1024.3
25°	1037.9	1031.9	1015.3	979.1	952.0
27.5°	991.2	982.2	964.1	912.9	881.2
30°	940.0	935.5	909.8	843.6	819.5
32.5°	891.8	884.2	857.1	787.8	768.2
35°	842.1	836.0	795.4	735.1	717.0
37.5°	792.4	784.8	733.6	685.4	662.8
40°	742.6	733.6	677.9	634.2	610.1
42.5°	695.9	683.9	629.7	583.0	555.9
45°	646.2	632.7	578.4	530.2	509.2
47.5°	596.5	584.5	534.8	485.1	460.9
50°	543.8	533.3	488.1	438.4	412.7
52.5°	500.1	483.5	439.9	390.2	369.1
55°	448.9	435.3	394.7	348.0	329.9
57.5°	402.2	388.6	351.0	307.3	292.2
60°	358.5	338.9	307.3	269.6	257.6
62.5°	310.3	295.2	268.1	236.5	251.6
65°	266.6	251.6	227.5	232.0	192.8
67.5°	218.4	210.9	189.8	168.7	162.7
70°	177.8	168.7	161.2	138.6	132.6
72.5°	141.6	132.6	122.0	110.0	105.4
75°	107.0	99.4	93.4	88.9	97.9
77.5°	73.8	70.8	66.3	61.8	60.3
80°	48.2	46.7	45.2	43.7	42.2
82.5°	28.6	28.6	28.6	28.6	28.6
85°	15.1	16.6	18.1	19.6	21.1
87.5°	9.0	9.0	10.5	12.1	13.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)