

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: P560228

Luminaire Tested: FSR-12-2-LD4-2HI-35-UNV-93-86-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560228
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-LD4-2HI-35-UNV-93-86-EDD-90
Description: 1X2 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3040.0 lumens
Efficiency: N/A
Efficacy: 70.4 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

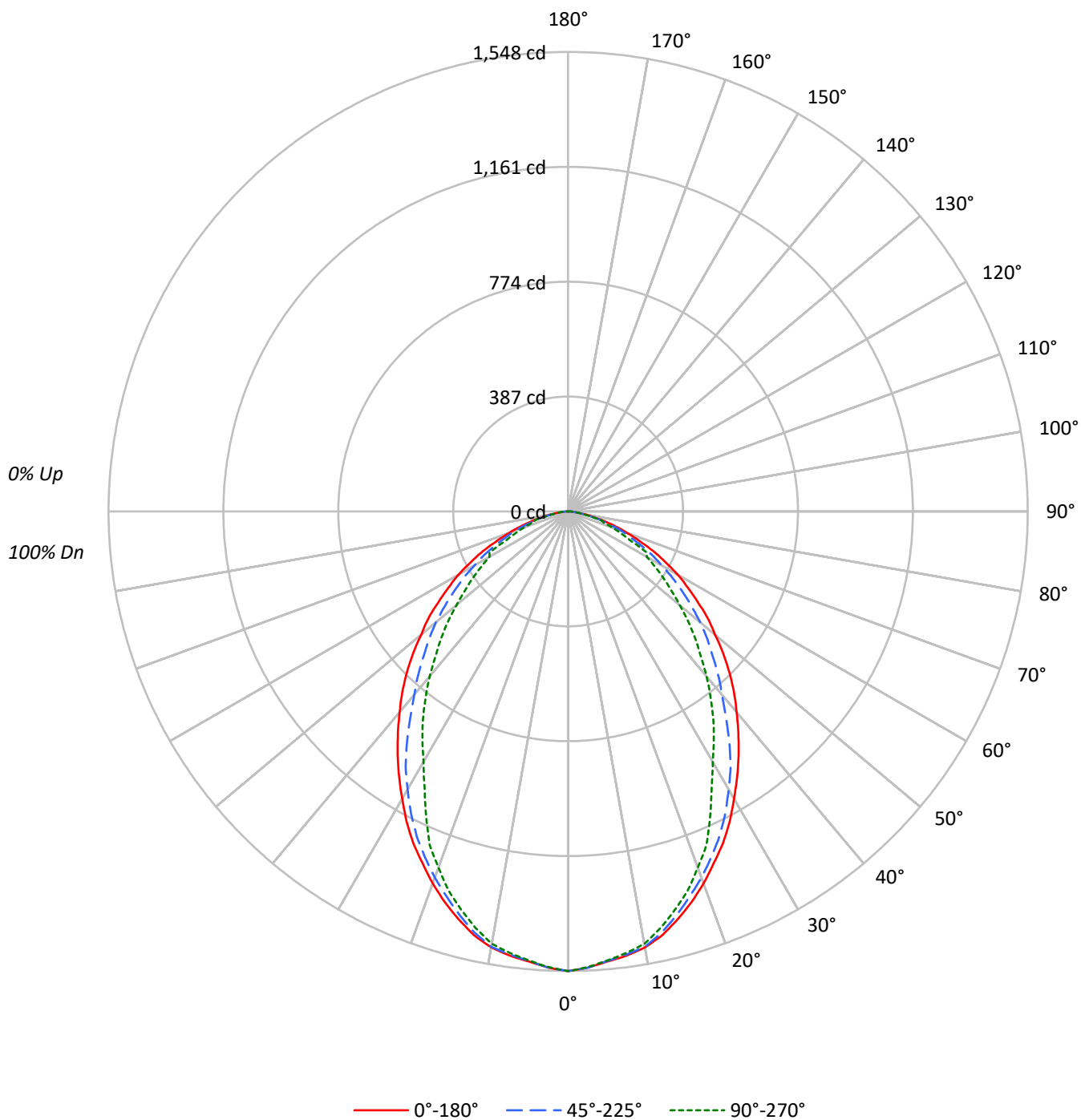
Input Watts (W): 43.2
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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
RW	70	50	30	10	70	50	30	10	50	30	10		50	30	10		50
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102
1	110	106	102	99	108	104	100	97	100	97	94		96	94	91		92
2	101	94	88	83	99	92	87	82	89	84	80		86	82	78		83
3	93	84	77	71	91	82	76	70	79	74	69		77	72	68		74
4	86	75	67	61	84	74	66	61	72	65	60		69	64	59		67
5	80	68	60	54	78	67	59	53	65	58	53		63	57	52		61
6	74	62	53	48	72	61	53	47	59	52	47		57	51	47		56
7	69	56	48	43	67	56	48	42	54	47	42		53	46	42		51
8	65	52	44	38	63	51	44	38	50	43	38		49	42	38		48
9	61	48	40	35	59	47	40	35	46	39	35		45	39	34		44
10	57	44	37	32	56	44	37	32	43	36	32		42	36	32		41

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8334	8334	8334
5°	8221	8211	8202
10°	8149	8140	8081
15°	7930	7850	7740
20°	7639	7515	7310
25°	7325	7165	6719
30°	6942	6720	6052
35°	6575	6210	5598
40°	6201	5660	5094
45°	5845	5232	4606
50°	5411	4856	4107
55°	5006	4401	3679
60°	4587	3931	3295
65°	4036	3442	2918
70°	3323	3015	2478
75°	2643	2308	2420
80°	1776	1664	1553
85°	1105	1328	1550

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 5845 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	144.1	4.7
10°-20°	395.6	13.0
20°-30°	547.7	18.0
30°-40°	584.0	19.2
40°-50°	532.8	17.5
50°-60°	417.4	13.7
60°-70°	272.0	8.9
70°-80°	120.5	4.0
80°-90°	25.9	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°	1087.4	35.8
0°-40°	1671.4	55.0
0°-60°	2621.6	86.2
0°-90°	3040.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3040.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1548	1548	1548	1548	1548	
5°	1522	1520	1520	1518	1518	144
15°	1423	1423	1409	1395	1389	400
25°	1234	1226	1207	1164	1131	566
35°	1001	994	945	874	852	626
45°	768	752	687	630	605	592
55°	534	517	469	414	392	479
65°	317	299	270	276	229	312
75°	127	118	111	106	116	136
85°	18	20	22	23	25	25
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1548.5	1548.5	1548.5	1548.5	1548.5
2.5°	1537.8	1537.8	1537.8	1536.0	1536.0
5°	1521.7	1519.9	1519.9	1518.1	1518.1
7.5°	1509.2	1507.4	1505.6	1503.8	1500.2
10°	1491.2	1491.2	1489.5	1480.5	1478.7
12.5°	1462.6	1460.8	1453.7	1441.1	1437.5
15°	1423.2	1423.2	1408.9	1394.6	1389.2
17.5°	1380.3	1378.5	1360.6	1346.2	1339.1
20°	1333.7	1330.1	1312.2	1289.0	1276.4
22.5°	1281.8	1281.8	1260.3	1229.9	1217.3
25°	1233.5	1226.3	1206.6	1163.6	1131.4
27.5°	1178.0	1167.2	1145.7	1084.9	1047.3
30°	1117.1	1111.7	1081.3	1002.5	973.9
32.5°	1059.8	1050.9	1018.6	936.3	913.0
35°	1000.7	993.6	945.2	873.6	852.1
37.5°	941.7	932.7	871.8	814.5	787.7
40°	882.6	871.8	805.6	753.7	725.0
42.5°	827.1	812.8	748.3	692.8	660.6
45°	768.0	751.9	687.4	630.2	605.1
47.5°	708.9	694.6	635.5	576.4	547.8
50°	646.3	633.7	580.0	521.0	490.5
52.5°	594.4	574.7	522.7	463.7	438.6
55°	533.5	517.4	469.0	413.5	392.1
57.5°	478.0	461.9	417.1	365.2	347.3
60°	426.1	402.8	365.2	320.4	306.1
62.5°	368.8	350.9	318.7	281.1	299.0
65°	316.9	299.0	270.3	275.7	229.1
67.5°	259.6	250.6	225.6	200.5	193.3
70°	211.2	200.5	191.6	164.7	157.5
72.5°	168.3	157.5	145.0	130.7	125.3
75°	127.1	118.2	111.0	105.6	116.4
77.5°	87.7	84.1	78.8	73.4	71.6
80°	57.3	55.5	53.7	51.9	50.1
82.5°	34.0	34.0	34.0	34.0	34.0
85°	17.9	19.7	21.5	23.3	25.1
87.5°	10.7	10.7	12.5	14.3	16.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)