

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: P560294

Luminaire Tested: FSR-12-2-LD4-2HI-40-UNV-93-87-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560294
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-40-UNV-93-87-EDD-90
Description: 1X2 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2983.0 lumens
Efficiency: N/A
Efficacy: 69.1 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

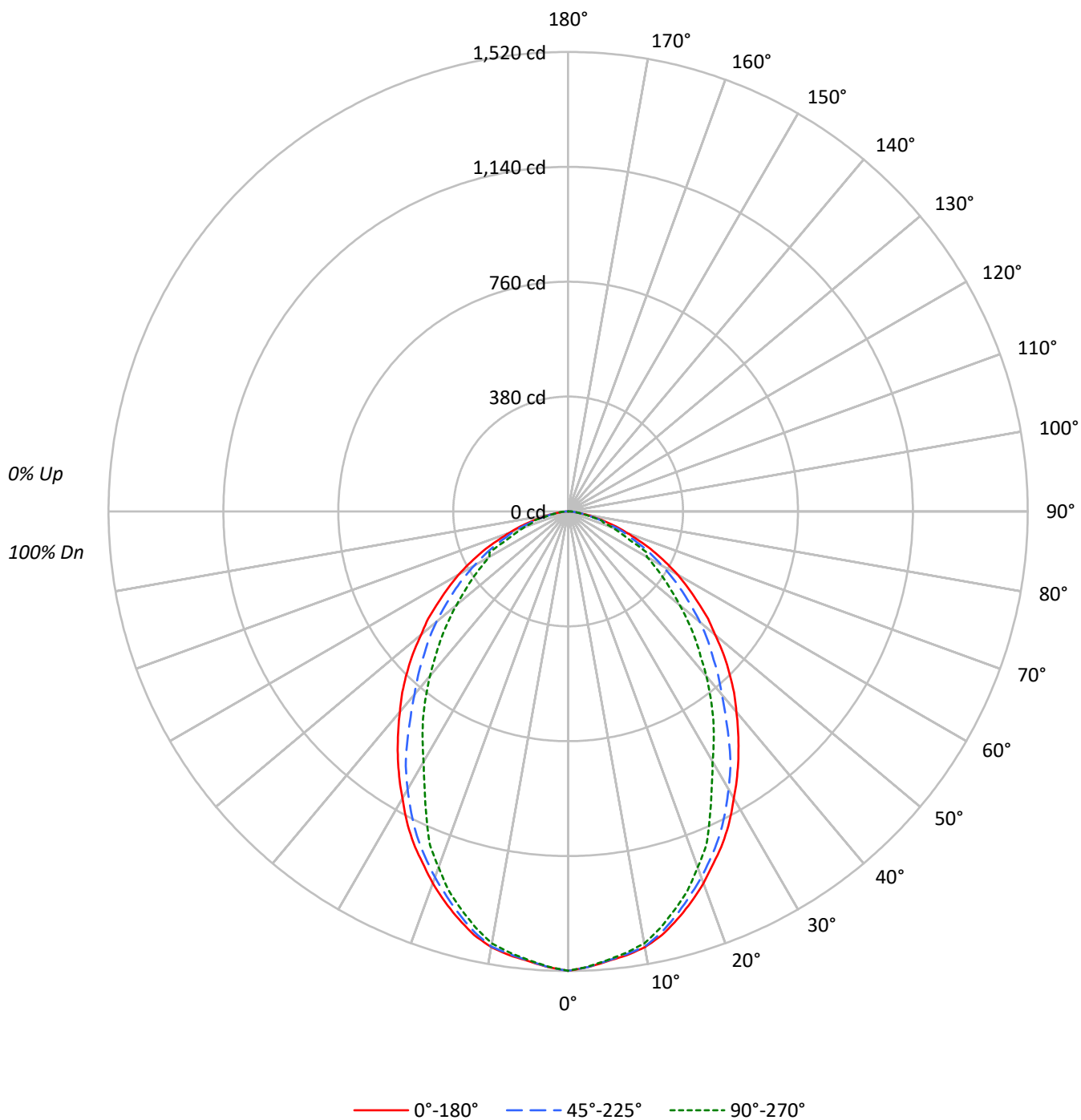
Input Watts (W): 43.2
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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					0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
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°	8178	8178	8178
5°	8067	8057	8048
10°	7997	7987	7930
15°	7781	7703	7595
20°	7495	7375	7174
25°	7187	7031	6593
30°	6812	6594	5939
35°	6452	6094	5494
40°	6084	5554	4998
45°	5736	5135	4519
50°	5309	4766	4030
55°	4912	4318	3610
60°	4500	3858	3233
65°	3959	3379	2864
70°	3262	2958	2433
75°	2593	2264	2375
80°	1742	1633	1525
85°	1087	1303	1519

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 5736 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	141.4	4.7
10°-20°	388.2	13.0
20°-30°	537.4	18.0
30°-40°	573.0	19.2
40°-50°	522.8	17.5
50°-60°	409.6	13.7
60°-70°	266.9	8.9
70°-80°	118.3	4.0
80°-90°	25.4	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°	1067.0	35.8
0°-40°	1640.1	55.0
0°-60°	2572.4	86.2
0°-90°	2983.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2983.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1520	1520	1520	1520	1520	
5°	1493	1491	1491	1490	1490	142
15°	1396	1396	1382	1368	1363	393
25°	1210	1203	1184	1142	1110	556
35°	982	975	928	857	836	614
45°	754	738	675	618	594	580
55°	524	508	460	406	385	470
65°	311	293	265	270	225	306
75°	125	116	109	104	114	134
85°	18	19	21	23	25	24
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1519.5	1519.5	1519.5	1519.5	1519.5
2.5°	1509.0	1509.0	1509.0	1507.2	1507.2
5°	1493.2	1491.4	1491.4	1489.6	1489.6
7.5°	1480.9	1479.1	1477.3	1475.6	1472.1
10°	1463.3	1463.3	1461.5	1452.7	1451.0
12.5°	1435.2	1433.4	1426.4	1414.1	1410.6
15°	1396.5	1396.5	1382.5	1368.4	1363.2
17.5°	1354.4	1352.6	1335.1	1321.0	1314.0
20°	1308.7	1305.2	1287.6	1264.8	1252.5
22.5°	1257.8	1257.8	1236.7	1206.8	1194.5
25°	1210.3	1203.3	1184.0	1141.8	1110.2
27.5°	1155.9	1145.3	1124.3	1064.5	1027.6
30°	1096.1	1090.9	1061.0	983.7	955.6
32.5°	1039.9	1031.2	999.5	918.7	895.9
35°	982.0	974.9	927.5	857.2	836.2
37.5°	924.0	915.2	855.5	799.3	772.9
40°	866.0	855.5	790.5	739.5	711.4
42.5°	811.6	797.5	734.3	679.8	648.2
45°	753.6	737.8	674.6	618.3	593.7
47.5°	695.6	681.6	623.6	565.6	537.5
50°	634.1	621.9	569.2	511.2	481.3
52.5°	583.2	563.9	512.9	455.0	430.4
55°	523.5	507.7	460.2	405.8	384.7
57.5°	469.0	453.2	409.3	358.4	340.8
60°	418.1	395.2	358.4	314.4	300.4
62.5°	361.9	344.3	312.7	275.8	293.4
65°	310.9	293.4	265.3	270.5	224.9
67.5°	254.7	245.9	221.3	196.7	189.7
70°	207.3	196.7	188.0	161.6	154.6
72.5°	165.1	154.6	142.3	128.2	123.0
75°	124.7	115.9	108.9	103.6	114.2
77.5°	86.1	82.6	77.3	72.0	70.3
80°	56.2	54.5	52.7	50.9	49.2
82.5°	33.4	33.4	33.4	33.4	33.4
85°	17.6	19.3	21.1	22.8	24.6
87.5°	10.5	10.5	12.3	14.1	15.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)