

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: P560232

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

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560232
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-93-88-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: 2649.0 lumens
Efficiency: N/A
Efficacy: 61.3 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

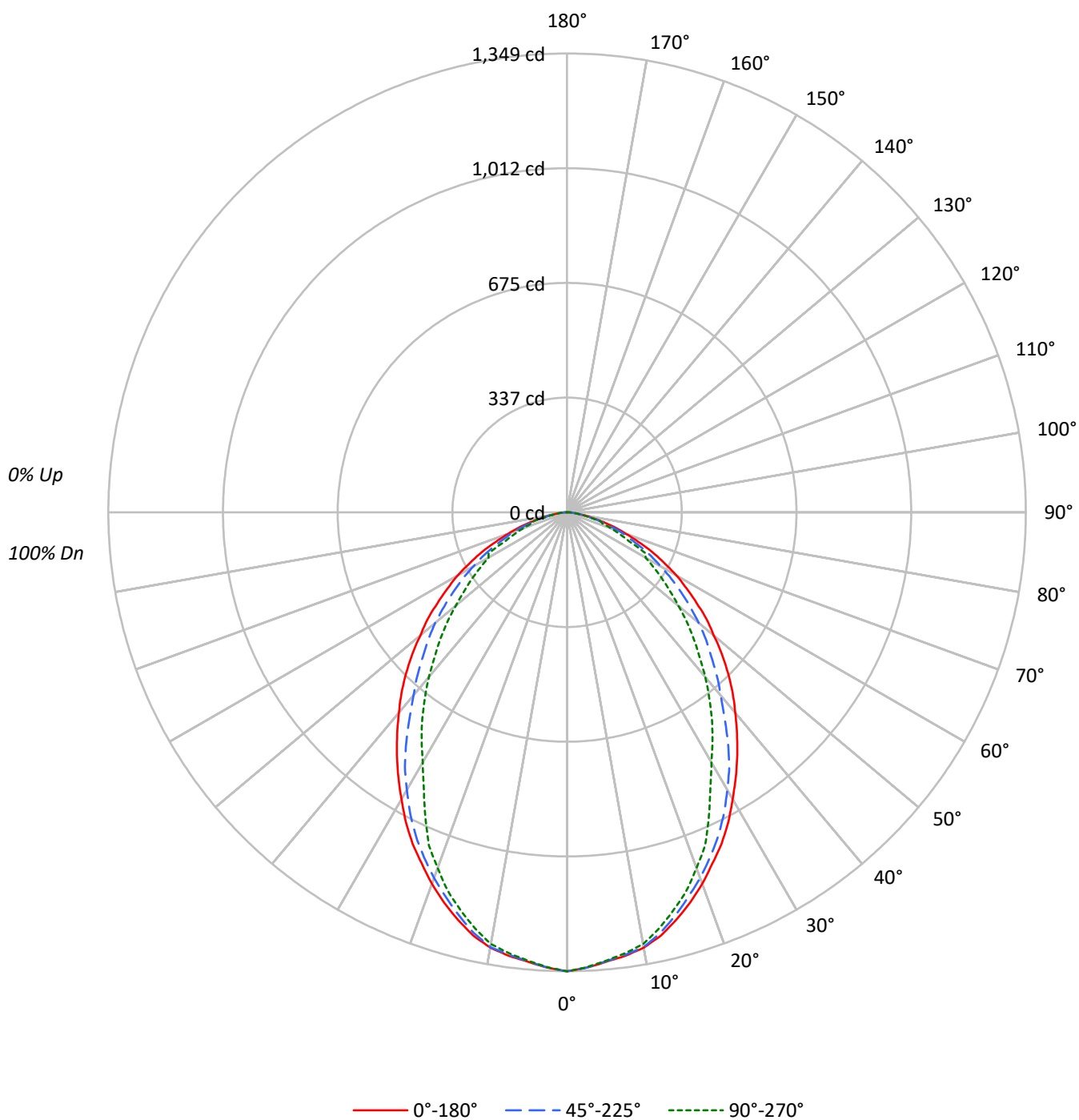
Input Watts (W): 43.2
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	7262	7262	7262
5°	7164	7155	7146
10°	7101	7093	7042
15°	6910	6841	6745
20°	6656	6549	6371
25°	6383	6244	5855
30°	6049	5855	5274
35°	5729	5412	4878
40°	5403	4932	4439
45°	5093	4559	4013
50°	4715	4232	3579
55°	4362	3835	3205
60°	3997	3425	2872
65°	3516	3000	2543
70°	2897	2626	2161
75°	2304	2011	2109
80°	1547	1450	1354
85°	963	1155	1346

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 5093 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	125.6	4.7
10°-20°	344.7	13.0
20°-30°	477.2	18.0
30°-40°	508.9	19.2
40°-50°	464.2	17.5
50°-60°	363.7	13.7
60°-70°	237.0	8.9
70°-80°	105.0	4.0
80°-90°	22.5	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°	947.6	35.8
0°-40°	1456.5	55.0
0°-60°	2284.4	86.2
0°-90°	2649.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2649.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1349	1349	1349	1349	1349	
5°	1326	1324	1324	1323	1323	126
15°	1240	1240	1228	1215	1210	349
25°	1075	1069	1051	1014	986	493
35°	872	866	824	761	742	545
45°	669	655	599	549	527	515
55°	465	451	409	360	342	417
65°	276	260	236	240	200	272
75°	111	103	97	92	101	119
85°	16	17	19	20	22	22
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1349.4	1349.4	1349.4	1349.4	1349.4
2.5°	1340.0	1340.0	1340.0	1338.4	1338.4
5°	1326.0	1324.4	1324.4	1322.8	1322.8
7.5°	1315.0	1313.5	1311.9	1310.4	1307.2
10°	1299.4	1299.4	1297.9	1290.1	1288.5
12.5°	1274.5	1272.9	1266.7	1255.8	1252.6
15°	1240.2	1240.2	1227.7	1215.2	1210.5
17.5°	1202.7	1201.2	1185.6	1173.1	1166.8
20°	1162.2	1159.1	1143.5	1123.2	1112.3
22.5°	1116.9	1116.9	1098.2	1071.7	1060.8
25°	1074.8	1068.6	1051.4	1014.0	985.9
27.5°	1026.5	1017.1	998.4	945.3	912.6
30°	973.4	968.7	942.2	873.6	848.6
32.5°	923.5	915.7	887.6	815.9	795.6
35°	872.0	865.8	823.7	761.3	742.5
37.5°	820.5	812.7	759.7	709.8	686.4
40°	769.1	759.7	702.0	656.7	631.8
42.5°	720.7	708.2	652.1	603.7	575.6
45°	669.2	655.2	599.0	549.1	527.3
47.5°	617.7	605.3	553.8	502.3	477.3
50°	563.1	552.2	505.4	453.9	427.4
52.5°	517.9	500.7	455.5	404.0	382.2
55°	464.9	450.8	408.7	360.4	341.6
57.5°	416.5	402.5	363.5	318.2	302.6
60°	371.3	351.0	318.2	279.2	266.8
62.5°	321.4	305.8	277.7	244.9	260.5
65°	276.1	260.5	235.6	240.2	199.7
67.5°	226.2	218.4	196.6	174.7	168.5
70°	184.1	174.7	166.9	143.5	137.3
72.5°	146.6	137.3	126.4	113.9	109.2
75°	110.8	103.0	96.7	92.0	101.4
77.5°	76.4	73.3	68.6	64.0	62.4
80°	49.9	48.4	46.8	45.2	43.7
82.5°	29.6	29.6	29.6	29.6	29.6
85°	15.6	17.2	18.7	20.3	21.8
87.5°	9.4	9.4	10.9	12.5	14.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)