

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: P560200

Luminaire Tested: FSR-12-2-LD4-2HI-35-UNV-81-88-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560200
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-81-88-EDD-90
Description: 1X2 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2512.0 lumens
Efficiency: N/A
Efficacy: 58.1 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

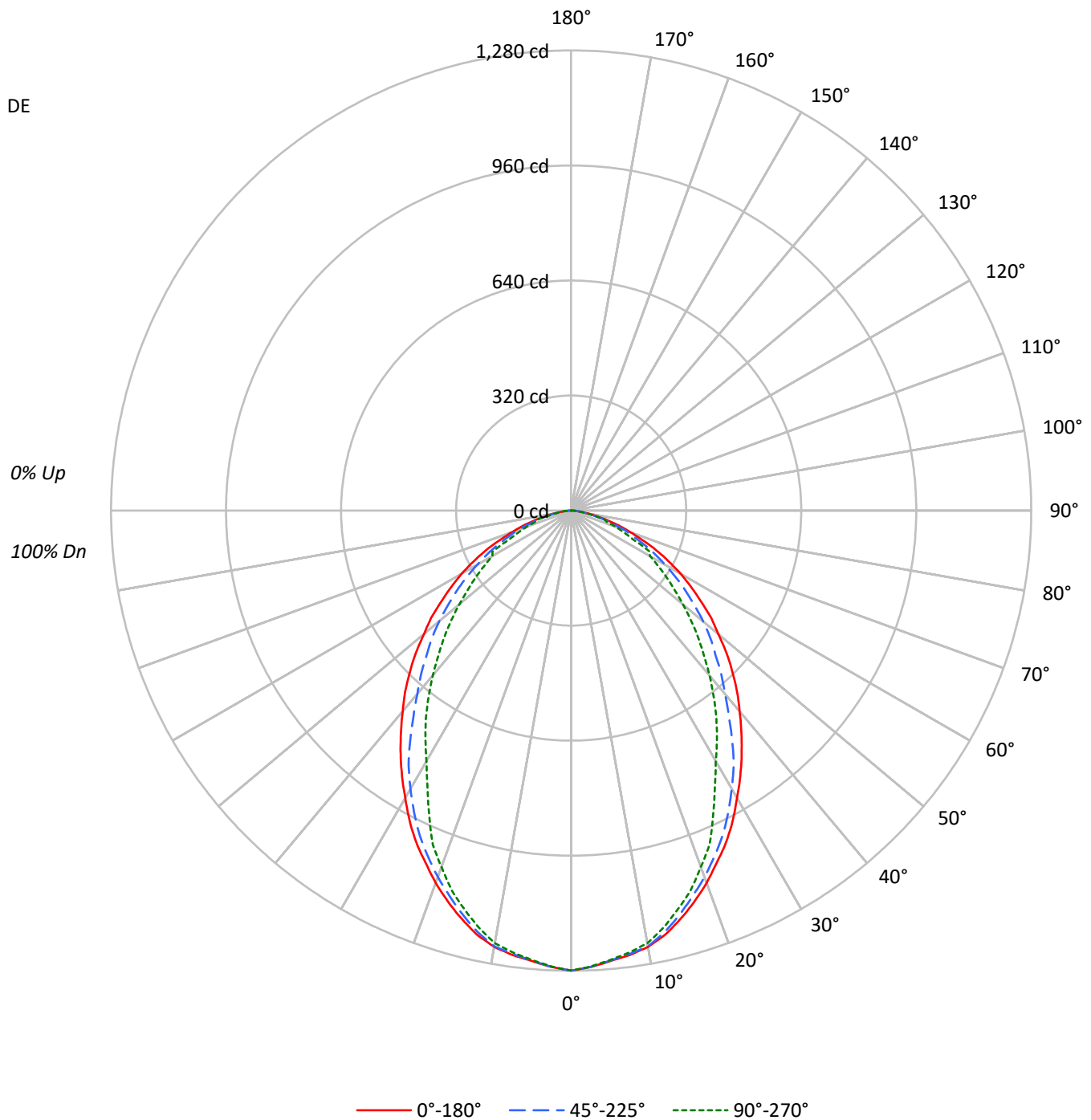
Input Watts (W): 43.2
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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									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°	6887	6887	6887
5°	6793	6785	6777
10°	6734	6726	6678
15°	6552	6487	6396
20°	6312	6210	6041
25°	6052	5921	5552
30°	5737	5553	5001
35°	5433	5132	4626
40°	5124	4677	4209
45°	4830	4323	3806
50°	4471	4013	3394
55°	4136	3637	3040
60°	3790	3249	2723
65°	3334	2845	2411
70°	2747	2491	2049
75°	2183	1907	2000
80°	1466	1376	1283
85°	914	1099	1278

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4830 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	119.1	4.7
10°-20°	326.9	13.0
20°-30°	452.6	18.0
30°-40°	482.6	19.2
40°-50°	440.2	17.5
50°-60°	344.9	13.7
60°-70°	224.8	8.9
70°-80°	99.6	4.0
80°-90°	21.4	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°	898.6	35.8
0°-40°	1381.1	55.0
0°-60°	2166.3	86.2
0°-90°	2512.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2512.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1280	1280	1280	1280	1280	
5°	1257	1256	1256	1254	1254	119
15°	1176	1176	1164	1152	1148	331
25°	1019	1013	997	962	935	468
35°	827	821	781	722	704	517
45°	635	621	568	521	500	489
55°	441	428	388	342	324	395
65°	262	247	223	228	189	258
75°	105	98	92	87	96	113
85°	15	16	18	19	21	21
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1279.6	1279.6	1279.6	1279.6	1279.6
2.5°	1270.7	1270.7	1270.7	1269.2	1269.2
5°	1257.4	1255.9	1255.9	1254.4	1254.4
7.5°	1247.0	1245.6	1244.1	1242.6	1239.6
10°	1232.2	1232.2	1230.8	1223.4	1221.9
12.5°	1208.6	1207.1	1201.2	1190.8	1187.9
15°	1176.0	1176.0	1164.2	1152.4	1147.9
17.5°	1140.5	1139.0	1124.3	1112.4	1106.5
20°	1102.1	1099.1	1084.3	1065.1	1054.7
22.5°	1059.2	1059.2	1041.4	1016.3	1005.9
25°	1019.2	1013.3	997.0	961.5	934.9
27.5°	973.4	964.5	946.7	896.4	865.4
30°	923.1	918.6	893.5	828.4	804.7
32.5°	875.7	868.3	841.7	773.7	754.4
35°	826.9	821.0	781.1	721.9	704.1
37.5°	778.1	770.7	720.4	673.1	650.9
40°	729.3	720.4	665.7	622.8	599.1
42.5°	683.4	671.6	618.3	572.5	545.9
45°	634.6	621.3	568.0	520.7	500.0
47.5°	585.8	574.0	525.1	476.3	452.7
50°	534.0	523.7	479.3	430.5	405.3
52.5°	491.1	474.8	432.0	383.1	362.4
55°	440.8	427.5	387.6	341.7	324.0
57.5°	395.0	381.7	344.7	301.8	287.0
60°	352.1	332.8	301.8	264.8	253.0
62.5°	304.7	289.9	263.3	232.2	247.0
65°	261.8	247.0	223.4	227.8	189.3
67.5°	214.5	207.1	186.4	165.7	159.8
70°	174.6	165.7	158.3	136.1	130.2
72.5°	139.1	130.2	119.8	108.0	103.5
75°	105.0	97.6	91.7	87.3	96.2
77.5°	72.5	69.5	65.1	60.7	59.2
80°	47.3	45.9	44.4	42.9	41.4
82.5°	28.1	28.1	28.1	28.1	28.1
85°	14.8	16.3	17.8	19.2	20.7
87.5°	8.9	8.9	10.4	11.8	13.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)