

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: P560266

Luminaire Tested: FSR-12-2-LD4-2HI-40-UNV-81-94-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560266
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-81-94-EDD-90
Description: 1X2 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3024.0 lumens
Efficiency: N/A
Efficacy: 70.0 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

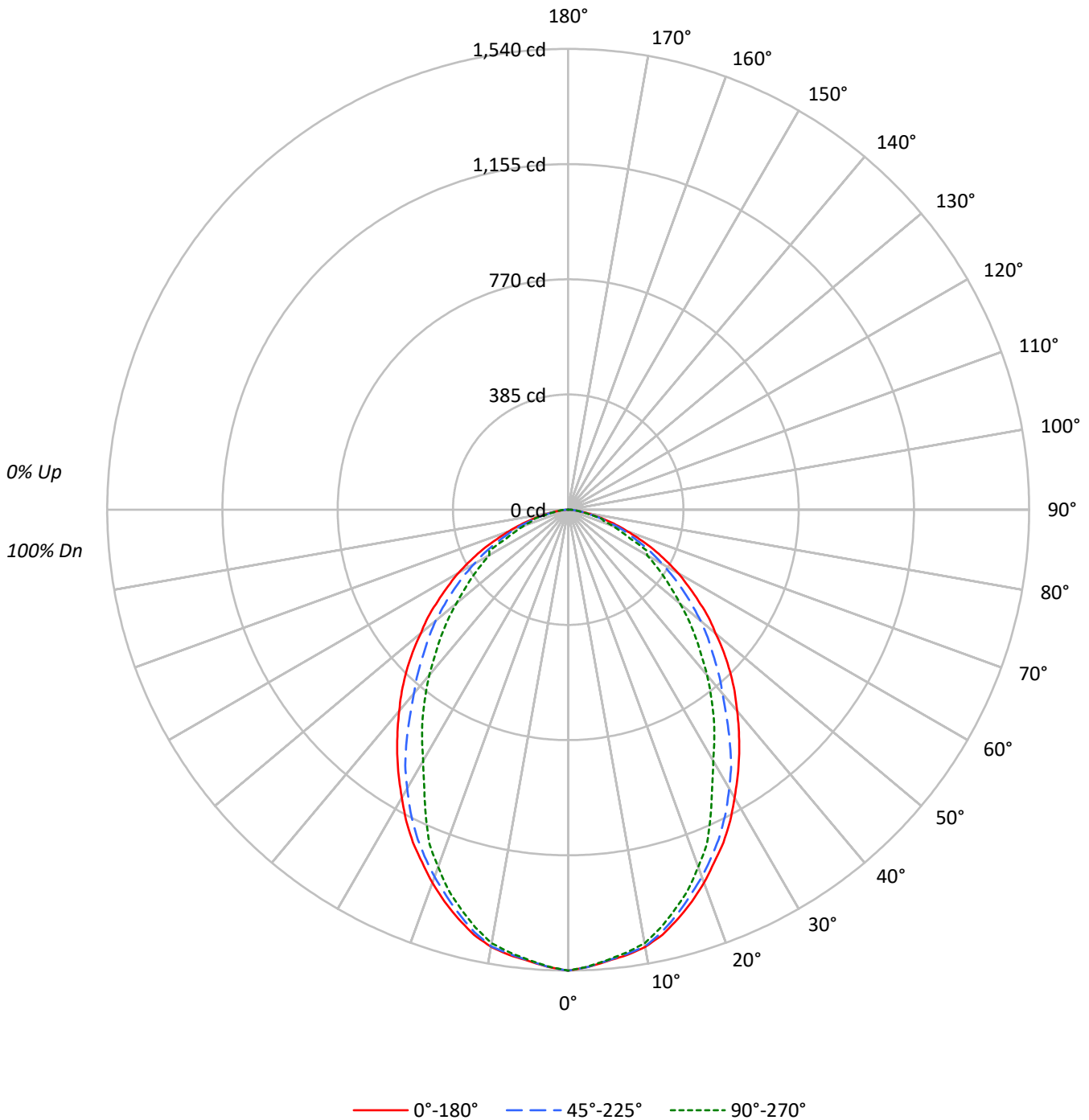
Input Watts (W): 43.2
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	8290	8290	8290
5°	8178	8168	8158
10°	8107	8097	8038
15°	7888	7809	7700
20°	7598	7476	7272
25°	7286	7128	6684
30°	6906	6684	6021
35°	6541	6178	5570
40°	6168	5630	5067
45°	5815	5205	4581
50°	5383	4831	4085
55°	4980	4378	3659
60°	4562	3911	3278
65°	4014	3424	2902
70°	3306	2998	2466
75°	2628	2296	2408
80°	1767	1655	1547
85°	1099	1321	1538

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5815 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	143.4	4.7
10°-20°	393.5	13.0
20°-30°	544.8	18.0
30°-40°	580.9	19.2
40°-50°	530.0	17.5
50°-60°	415.2	13.7
60°-70°	270.6	8.9
70°-80°	119.9	4.0
80°-90°	25.7	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°	1081.7	35.8
0°-40°	1662.6	55.0
0°-60°	2607.8	86.2
0°-90°	3024.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3024.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1540	1540	1540	1540	1540	
5°	1514	1512	1512	1510	1510	144
15°	1416	1416	1402	1387	1382	398
25°	1227	1220	1200	1158	1126	563
35°	996	988	940	869	848	622
45°	764	748	684	627	602	588
55°	531	515	467	411	390	476
65°	315	297	269	274	228	311
75°	126	118	110	105	116	136
85°	18	20	21	23	25	25
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1540.4	1540.4	1540.4	1540.4	1540.4
2.5°	1529.7	1529.7	1529.7	1527.9	1527.9
5°	1513.7	1511.9	1511.9	1510.1	1510.1
7.5°	1501.2	1499.4	1497.6	1495.9	1492.3
10°	1483.4	1483.4	1481.6	1472.7	1470.9
12.5°	1454.9	1453.1	1446.0	1433.5	1430.0
15°	1415.7	1415.7	1401.5	1387.2	1381.9
17.5°	1373.0	1371.2	1353.4	1339.2	1332.0
20°	1326.7	1323.1	1305.3	1282.2	1269.7
22.5°	1275.0	1275.0	1253.7	1223.4	1210.9
25°	1227.0	1219.8	1200.3	1157.5	1125.5
27.5°	1171.8	1161.1	1139.7	1079.2	1041.8
30°	1111.2	1105.9	1075.6	997.2	968.8
32.5°	1054.2	1045.3	1013.3	931.4	908.2
35°	995.5	988.3	940.3	869.0	847.7
37.5°	936.7	927.8	867.2	810.3	783.5
40°	877.9	867.2	801.4	749.7	721.2
42.5°	822.7	808.5	744.4	689.2	657.1
45°	764.0	747.9	683.8	626.8	601.9
47.5°	705.2	690.9	632.2	573.4	544.9
50°	642.9	630.4	577.0	518.2	487.9
52.5°	591.2	571.6	520.0	461.2	436.3
55°	530.7	514.6	466.6	411.4	390.0
57.5°	475.5	459.4	414.9	363.3	345.5
60°	423.8	400.7	363.3	318.8	304.5
62.5°	366.8	349.0	317.0	279.6	297.4
65°	315.2	297.4	268.9	274.2	227.9
67.5°	258.2	249.3	224.4	199.4	192.3
70°	210.1	199.4	190.5	163.8	156.7
72.5°	167.4	156.7	144.2	130.0	124.7
75°	126.4	117.5	110.4	105.1	115.8
77.5°	87.3	83.7	78.4	73.0	71.2
80°	57.0	55.2	53.4	51.6	49.9
82.5°	33.8	33.8	33.8	33.8	33.8
85°	17.8	19.6	21.4	23.2	24.9
87.5°	10.7	10.7	12.5	14.2	16.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)