

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: P560205

Luminaire Tested: FSR-12-2-LD4-2HI-35-UNV-81-96-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560205
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-81-96-EDD
Description: 1X2 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3524.0 lumens
Efficiency: N/A
Efficacy: 81.6 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

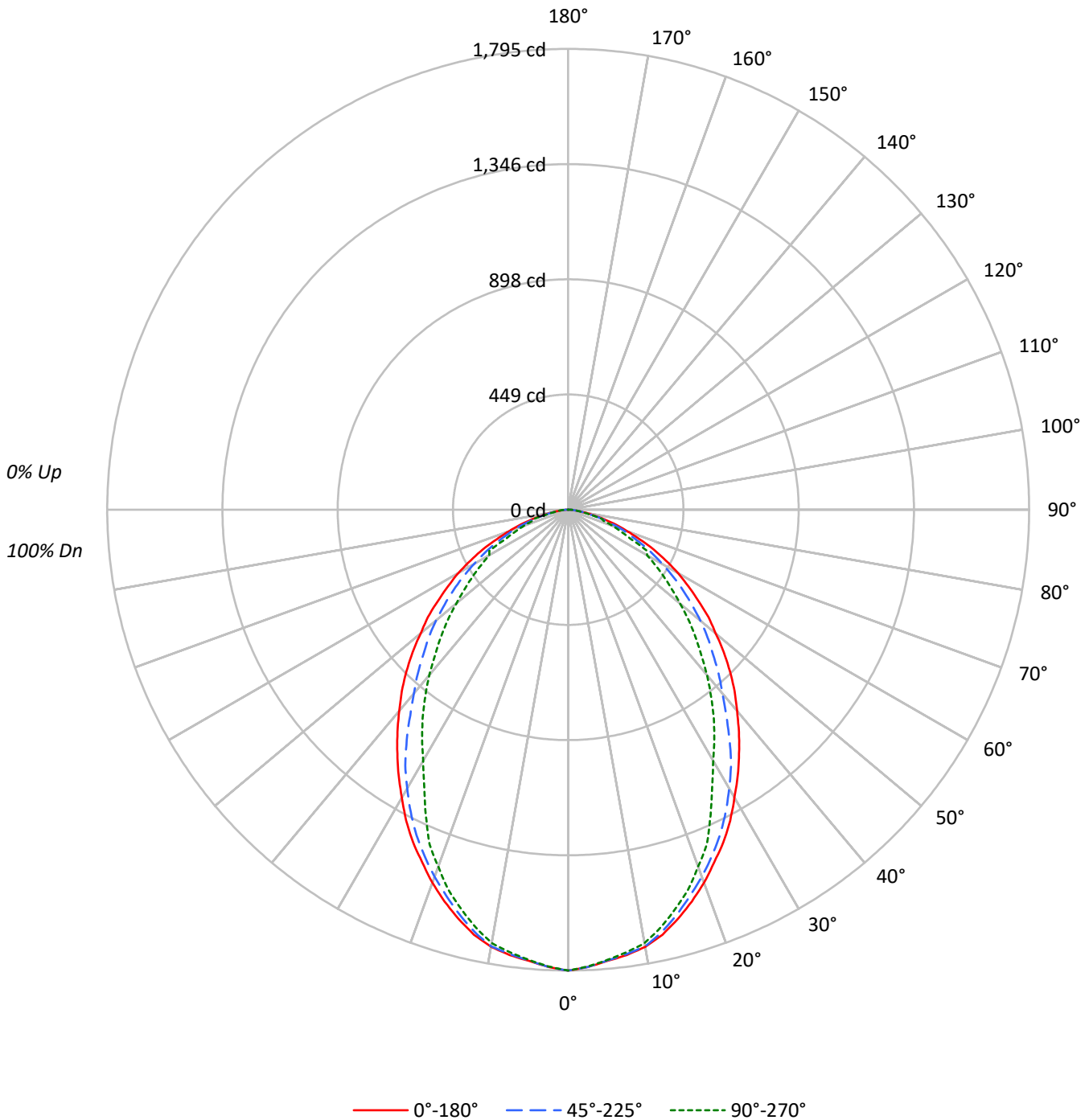
Input Watts (W): 43.2
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	9661	9661	9661
5°	9529	9519	9507
10°	9447	9436	9368
15°	9192	9100	8973
20°	8855	8712	8474
25°	8491	8306	7788
30°	8047	7789	7016
35°	7622	7199	6490
40°	7188	6561	5905
45°	6776	6065	5339
50°	6273	5630	4761
55°	5803	5102	4265
60°	5316	4556	3820
65°	4677	3991	3382
70°	3854	3495	2873
75°	3063	2676	2805
80°	2058	1931	1801
85°	1284	1538	1797

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6776 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	167.1	4.7
10°-20°	458.6	13.0
20°-30°	634.9	18.0
30°-40°	677.0	19.2
40°-50°	617.6	17.5
50°-60°	483.8	13.7
60°-70°	315.3	8.9
70°-80°	139.7	4.0
80°-90°	30.0	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°	1260.6	35.8
0°-40°	1937.5	55.0
0°-60°	3039.0	86.2
0°-90°	3524.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3524.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1795	1795	1795	1795	1795	
5°	1764	1762	1762	1760	1760	167
15°	1650	1650	1633	1617	1610	464
25°	1430	1422	1399	1349	1312	656
35°	1160	1152	1096	1013	988	725
45°	890	872	797	730	701	686
55°	618	600	544	479	454	555
65°	367	347	313	320	266	362
75°	147	137	129	122	135	158
85°	21	23	25	27	29	29
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1795.1	1795.1	1795.1	1795.1	1795.1
2.5°	1782.6	1782.6	1782.6	1780.6	1780.6
5°	1763.9	1761.9	1761.9	1759.8	1759.8
7.5°	1749.4	1747.3	1745.3	1743.2	1739.0
10°	1728.7	1728.7	1726.6	1716.2	1714.1
12.5°	1695.5	1693.4	1685.1	1670.6	1666.4
15°	1649.8	1649.8	1633.2	1616.6	1610.4
17.5°	1600.0	1597.9	1577.2	1560.6	1552.3
20°	1546.1	1541.9	1521.1	1494.2	1479.6
22.5°	1485.9	1485.9	1461.0	1425.7	1411.2
25°	1429.8	1421.5	1398.7	1348.9	1311.5
27.5°	1365.5	1353.1	1328.2	1257.6	1214.0
30°	1294.9	1288.7	1253.4	1162.1	1128.9
32.5°	1228.5	1218.2	1180.8	1085.3	1058.4
35°	1160.1	1151.8	1095.7	1012.7	987.8
37.5°	1091.6	1081.2	1010.6	944.2	913.1
40°	1023.1	1010.6	933.9	873.7	840.5
42.5°	958.8	942.2	867.4	803.1	765.8
45°	890.3	871.6	796.9	730.5	701.4
47.5°	821.8	805.2	736.7	668.2	635.0
50°	749.2	734.6	672.4	603.9	568.6
52.5°	689.0	666.2	606.0	537.5	508.4
55°	618.4	599.7	543.7	479.4	454.5
57.5°	554.1	535.4	483.5	423.3	402.6
60°	493.9	466.9	423.3	371.5	354.9
62.5°	427.5	406.7	369.4	325.8	346.6
65°	367.3	346.6	313.4	319.6	265.6
67.5°	300.9	290.5	261.5	232.4	224.1
70°	244.9	232.4	222.1	190.9	182.6
72.5°	195.1	182.6	168.1	151.5	145.3
75°	147.3	137.0	128.7	122.4	134.9
77.5°	101.7	97.5	91.3	85.1	83.0
80°	66.4	64.3	62.3	60.2	58.1
82.5°	39.4	39.4	39.4	39.4	39.4
85°	20.8	22.8	24.9	27.0	29.1
87.5°	12.5	12.5	14.5	16.6	18.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)