

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: P590597

Luminaire Tested: FSR-24-2-LD4-3LO-50-UNV-82-84-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P590597
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-135-1)
Test Lab: INNOVATION CENTER
Issue Date: 12/8/2021
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: FAIL-SAFE
Catalog Number: FSR-24-2-LD4-3LO-50-UNV-82-84-EDD
Description: 2X2 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4175.0 lumens
Efficiency: N/A
Efficacy: 118.9 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

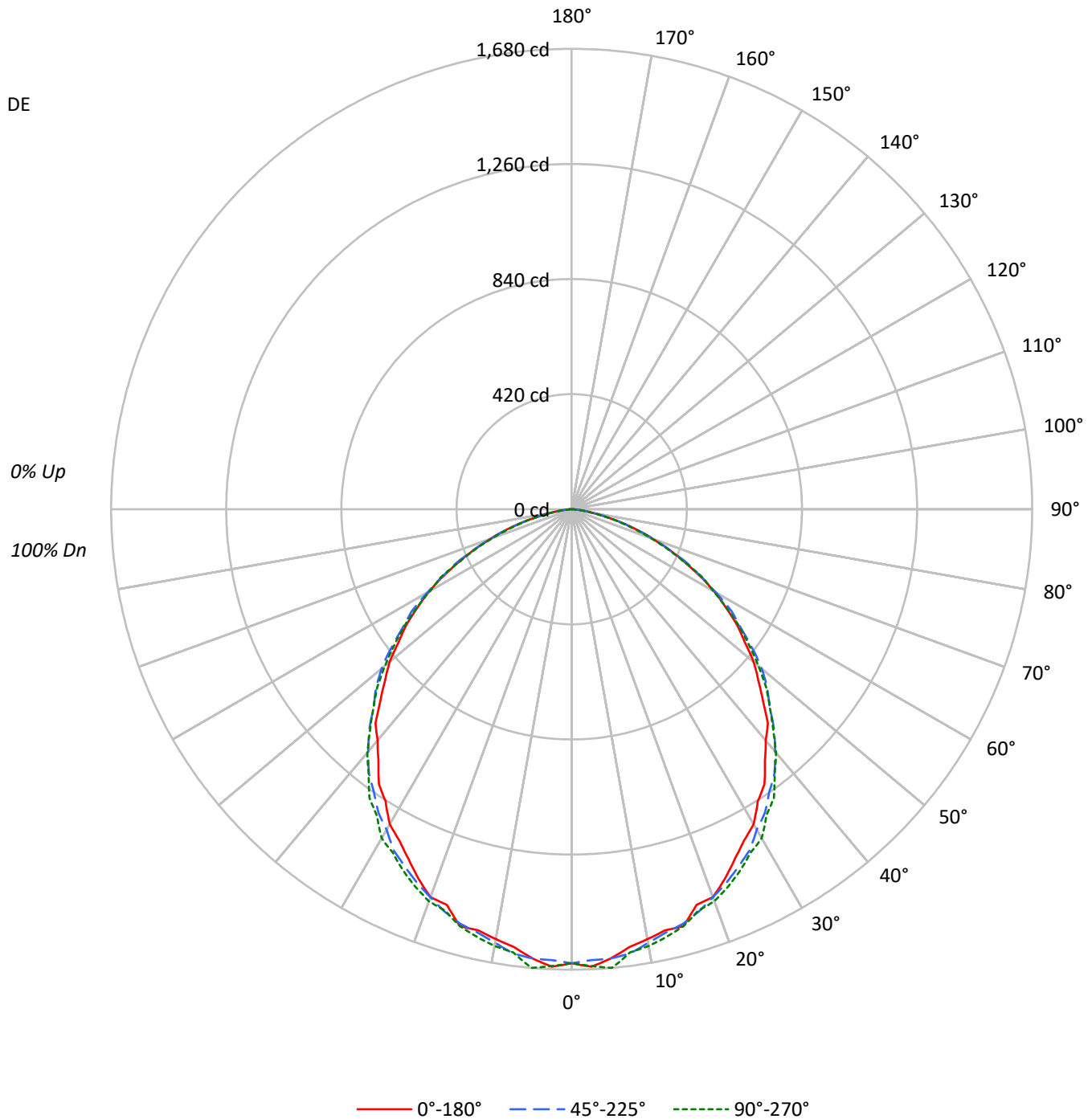
Input Watts (W): 35.1
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	110	105	101	98	107	103	100	96	99	96	93	95	93	90	91	90	88	86					86			
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75	73					73			
3	92	82	74	68	89	80	73	67	77	71	66	75	69	65	72	68	64	62					62			
4	84	73	64	58	82	71	64	58	69	62	57	67	61	56	65	59	55	53					53			
5	78	65	57	50	76	64	56	50	62	55	49	60	54	49	58	53	48	46					46			
6	72	59	50	44	70	58	50	44	56	49	43	54	48	43	53	47	43	41					41			
7	67	53	45	39	65	53	45	39	51	44	39	50	43	38	48	42	38	36					36			
8	62	49	41	35	61	48	40	35	47	40	34	46	39	34	44	39	34	32					32			
9	58	45	37	31	57	44	37	31	43	36	31	42	36	31	41	35	31	29					29			
10	54	41	34	29	53	41	33	28	40	33	28	39	33	28	38	32	28	26					26			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4458	4458	4458
5°	4443	4445	4538
10°	4353	4391	4422
15°	4387	4364	4388
20°	4313	4313	4359
25°	4181	4272	4319
30°	4123	4196	4307
35°	4026	4131	4224
40°	3869	4056	4074
45°	3752	3886	3892
50°	3629	3793	3720
55°	3458	3525	3500
60°	3233	3266	3207
65°	2883	2956	2863
70°	2474	2482	2413
75°	1959	1955	1879
80°	1313	1275	1226
85°	713	707	661

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 3986 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	155.8	3.7
10°-20°	441.6	10.6
20°-30°	661.6	15.8
30°-40°	784.2	18.8
40°-50°	785.6	18.8
50°-60°	666.9	16.0
60°-70°	449.6	10.8
70°-80°	197.6	4.7
80°-90°	32.1	0.8
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°	1259.1	30.2
0°-40°	2043.2	48.9
0°-60°	3495.7	83.7
0°-90°	4175.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4175.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1656	1656	1656	1656	1656	
5°	1645	1641	1645	1640	1680	155
15°	1575	1557	1566	1574	1575	439
25°	1408	1416	1439	1458	1455	651
35°	1226	1229	1258	1287	1286	761
45°	986	1004	1021	1047	1023	763
55°	737	732	751	746	746	656
65°	453	447	464	447	450	450
75°	188	185	188	175	181	202
85°	23	22	23	22	21	33
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1656.5	1656.5	1656.5	1656.5	1656.5
2.5°	1670.9	1658.2	1646.5	1660.2	1668.5
5°	1644.8	1640.9	1645.4	1640.5	1680.1
7.5°	1611.0	1625.7	1634.3	1628.9	1631.3
10°	1593.0	1587.9	1606.9	1620.2	1618.2
12.5°	1573.8	1581.5	1582.5	1596.9	1598.1
15°	1574.8	1556.7	1566.3	1574.4	1575.0
17.5°	1513.7	1533.3	1540.0	1558.6	1535.5
20°	1506.2	1491.8	1506.2	1525.2	1522.2
22.5°	1460.2	1444.1	1474.9	1491.8	1490.8
25°	1408.0	1415.7	1438.8	1457.6	1454.6
27.5°	1362.2	1371.2	1404.2	1430.0	1413.3
30°	1326.9	1322.4	1350.3	1373.4	1386.2
32.5°	1263.8	1280.1	1312.6	1335.5	1323.3
35°	1225.6	1229.2	1257.6	1286.7	1285.9
37.5°	1158.6	1175.5	1215.5	1223.6	1216.1
40°	1101.5	1118.4	1154.5	1163.3	1159.7
42.5°	1059.4	1062.4	1093.4	1103.4	1087.4
45°	986.0	1004.4	1021.1	1047.4	1022.6
47.5°	923.6	932.1	968.0	975.1	962.1
50°	866.9	869.9	906.0	897.2	888.7
52.5°	795.6	808.3	828.6	826.9	816.8
55°	737.0	732.1	751.4	746.2	746.0
57.5°	666.7	675.2	691.1	682.9	669.9
60°	600.8	601.0	606.8	597.6	595.9
62.5°	527.4	530.0	531.3	520.0	538.3
65°	452.8	446.8	464.3	446.6	449.6
67.5°	384.1	387.1	385.4	374.3	378.6
70°	314.4	318.3	315.5	302.9	306.7
72.5°	250.7	246.0	249.0	233.1	240.4
75°	188.4	184.6	188.0	174.7	180.7
77.5°	128.3	131.3	129.2	122.1	126.2
80°	84.7	82.3	82.3	78.3	79.1
82.5°	49.4	47.1	46.4	45.1	47.1
85°	23.1	22.5	22.9	22.2	21.4
87.5°	8.3	8.6	8.6	8.1	7.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)