

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: P560203

Luminaire Tested: FSR-12-2-LD4-2HI-35-UNV-81-94-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560203
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-81-94-EDD
Description: 1X2 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .187 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: 3563.0 lumens
Efficiency: N/A
Efficacy: 82.5 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

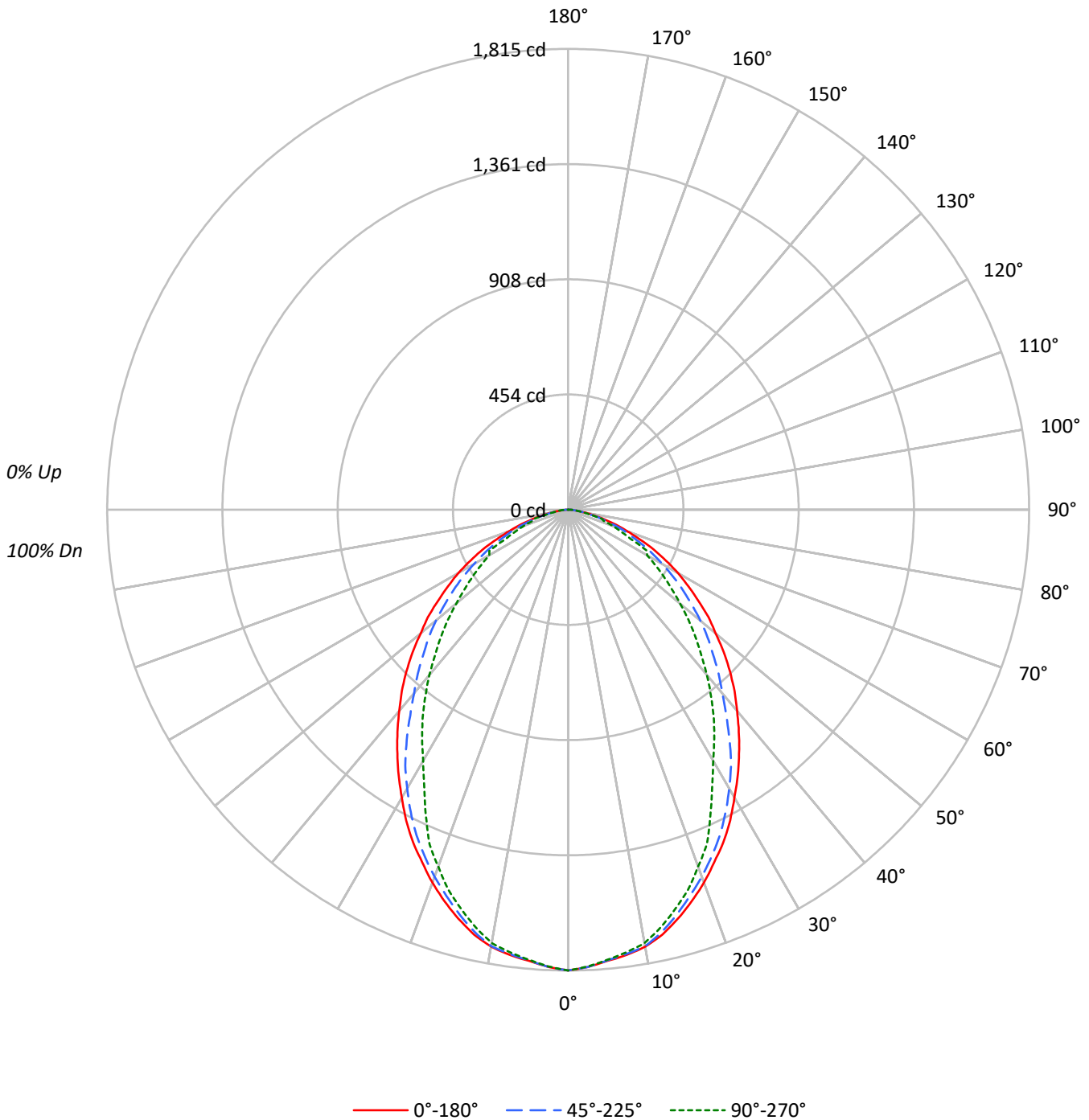
Input Watts (W): 43.2
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				100
1	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87				87
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75				75
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65				65
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56				56
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50				50
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44				44
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40				40
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36				36
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33				33
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30				30

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9768	9768	9768
5°	9635	9624	9613
10°	9552	9540	9471
15°	9294	9201	9072
20°	8953	8809	8568
25°	8585	8398	7875
30°	8137	7876	7093
35°	7706	7279	6562
40°	7267	6634	5970
45°	6851	6132	5398
50°	6342	5692	4814
55°	5867	5158	4312
60°	5375	4607	3862
65°	4730	4034	3421
70°	3896	3533	2905
75°	3098	2705	2836
80°	2080	1949	1819
85°	1297	1556	1815

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6851 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	168.9	4.7
10°-20°	463.7	13.0
20°-30°	641.9	18.0
30°-40°	684.5	19.2
40°-50°	624.4	17.5
50°-60°	489.2	13.7
60°-70°	318.8	8.9
70°-80°	141.2	4.0
80°-90°	30.3	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°	1274.5	35.8
0°-40°	1959.0	55.0
0°-60°	3072.6	86.2
0°-90°	3563.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3563.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1815	1815	1815	1815	1815	
5°	1784	1781	1781	1779	1779	169
15°	1668	1668	1651	1634	1628	469
25°	1446	1437	1414	1364	1326	664
35°	1173	1164	1108	1024	999	733
45°	900	881	806	739	709	693
55°	625	606	550	485	460	561
65°	371	350	317	323	269	366
75°	149	138	130	124	136	160
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°	1814.9	1814.9	1814.9	1814.9	1814.9
2.5°	1802.4	1802.4	1802.4	1800.3	1800.3
5°	1783.5	1781.4	1781.4	1779.3	1779.3
7.5°	1768.8	1766.7	1764.6	1762.5	1758.3
10°	1747.8	1747.8	1745.7	1735.2	1733.1
12.5°	1714.2	1712.1	1703.7	1689.1	1684.9
15°	1668.1	1668.1	1651.3	1634.5	1628.2
17.5°	1617.7	1615.6	1594.6	1577.8	1569.5
20°	1563.2	1559.0	1538.0	1510.7	1496.0
22.5°	1502.3	1502.3	1477.1	1441.5	1426.8
25°	1445.7	1437.3	1414.2	1363.8	1326.1
27.5°	1380.6	1368.0	1342.8	1271.5	1227.4
30°	1309.3	1303.0	1267.3	1175.0	1141.4
32.5°	1242.1	1231.6	1193.9	1097.4	1070.1
35°	1172.9	1164.5	1107.9	1023.9	998.7
37.5°	1103.7	1093.2	1021.8	954.7	923.2
40°	1034.4	1021.8	944.2	883.3	849.8
42.5°	969.4	952.6	877.0	812.0	774.2
45°	900.1	881.2	805.7	738.6	709.2
47.5°	830.9	814.1	744.9	675.6	642.0
50°	757.5	742.8	679.8	610.6	574.9
52.5°	696.6	673.5	612.7	543.4	514.1
55°	625.3	606.4	549.7	484.7	459.5
57.5°	560.2	541.3	488.9	428.0	407.1
60°	499.4	472.1	428.0	375.6	358.8
62.5°	432.2	411.2	373.5	329.4	350.4
65°	371.4	350.4	316.8	323.1	268.6
67.5°	304.2	293.7	264.4	235.0	226.6
70°	247.6	235.0	224.5	193.0	184.6
72.5°	197.2	184.6	170.0	153.2	146.9
75°	149.0	138.5	130.1	123.8	136.4
77.5°	102.8	98.6	92.3	86.0	83.9
80°	67.1	65.0	62.9	60.8	58.7
82.5°	39.9	39.9	39.9	39.9	39.9
85°	21.0	23.1	25.2	27.3	29.4
87.5°	12.6	12.6	14.7	16.8	18.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)