

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: P560269

Luminaire Tested: FSR-12-2-LD4-2HI-40-UNV-81-96-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560269
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-81-96-EDD
Description: 1X2 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3559.0 lumens
Efficiency: N/A
Efficacy: 82.4 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

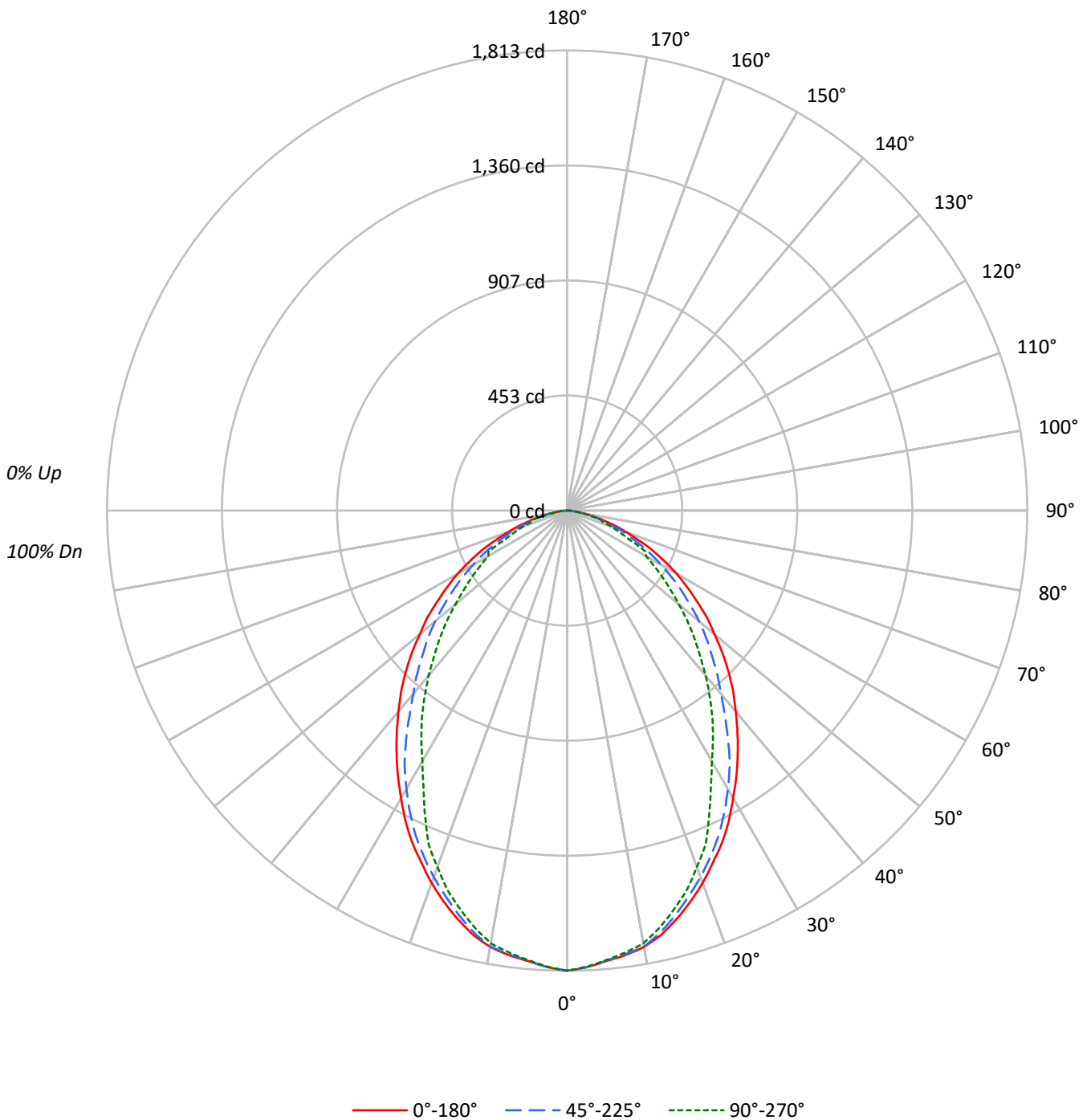
Input Watts (W): 43.2
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	9757	9757	9757
5°	9625	9613	9602
10°	9541	9529	9461
15°	9284	9190	9062
20°	8943	8799	8558
25°	8575	8388	7866
30°	8127	7867	7085
35°	7698	7271	6554
40°	7260	6626	5963
45°	6843	6126	5392
50°	6335	5686	4809
55°	5861	5152	4307
60°	5369	4603	3858
65°	4725	4031	3417
70°	3891	3530	2902
75°	3094	2701	2832
80°	2080	1949	1819
85°	1297	1556	1809

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6843 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	168.8	4.7
10°-20°	463.1	13.0
20°-30°	641.2	18.0
30°-40°	683.7	19.2
40°-50°	623.7	17.5
50°-60°	488.6	13.7
60°-70°	318.5	8.9
70°-80°	141.1	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°	1273.1	35.8
0°-40°	1956.8	55.0
0°-60°	3069.1	86.2
0°-90°	3559.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3559.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1813	1813	1813	1813	1813	
5°	1782	1779	1779	1777	1777	169
15°	1666	1666	1649	1633	1626	468
25°	1444	1436	1413	1362	1325	663
35°	1172	1163	1107	1023	998	732
45°	899	880	805	738	708	693
55°	625	606	549	484	459	560
65°	371	350	316	323	268	366
75°	149	138	130	124	136	159
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°	1812.9	1812.9	1812.9	1812.9	1812.9
2.5°	1800.3	1800.3	1800.3	1798.2	1798.2
5°	1781.5	1779.4	1779.4	1777.3	1777.3
7.5°	1766.8	1764.7	1762.6	1760.5	1756.3
10°	1745.8	1745.8	1743.7	1733.3	1731.2
12.5°	1712.3	1710.2	1701.8	1687.2	1683.0
15°	1666.2	1666.2	1649.4	1632.7	1626.4
17.5°	1615.9	1613.8	1592.8	1576.1	1567.7
20°	1561.4	1557.2	1536.3	1509.0	1494.3
22.5°	1500.6	1500.6	1475.5	1439.8	1425.2
25°	1444.0	1435.7	1412.6	1362.3	1324.6
27.5°	1379.1	1366.5	1341.3	1270.1	1226.1
30°	1307.8	1301.5	1265.9	1173.7	1140.1
32.5°	1240.7	1230.3	1192.5	1096.1	1068.9
35°	1171.6	1163.2	1106.6	1022.8	997.6
37.5°	1102.4	1091.9	1020.7	953.6	922.2
40°	1033.3	1020.7	943.1	882.4	848.8
42.5°	968.3	951.5	876.1	811.1	773.4
45°	899.1	880.3	804.8	737.7	708.4
47.5°	830.0	813.2	744.0	674.9	641.3
50°	756.6	741.9	679.1	609.9	574.3
52.5°	695.8	672.8	612.0	542.8	513.5
55°	624.6	605.7	549.1	484.1	459.0
57.5°	559.6	540.7	488.3	427.6	406.6
60°	498.8	471.6	427.6	375.2	358.4
62.5°	431.7	410.8	373.1	329.0	350.0
65°	371.0	350.0	316.5	322.8	268.3
67.5°	303.9	293.4	264.1	234.7	226.4
70°	247.3	234.7	224.3	192.8	184.4
72.5°	197.0	184.4	169.8	153.0	146.7
75°	148.8	138.3	129.9	123.7	136.2
77.5°	102.7	98.5	92.2	85.9	83.8
80°	67.1	65.0	62.9	60.8	58.7
82.5°	39.8	39.8	39.8	39.8	39.8
85°	21.0	23.1	25.2	27.2	29.3
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)