

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: P560193

Luminaire Tested: FSR-12-2-LD4-2HI-35-UNV-81-84-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560193
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-81-84-EDD
Description: 1X2 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3555.0 lumens
Efficiency: N/A
Efficacy: 82.3 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

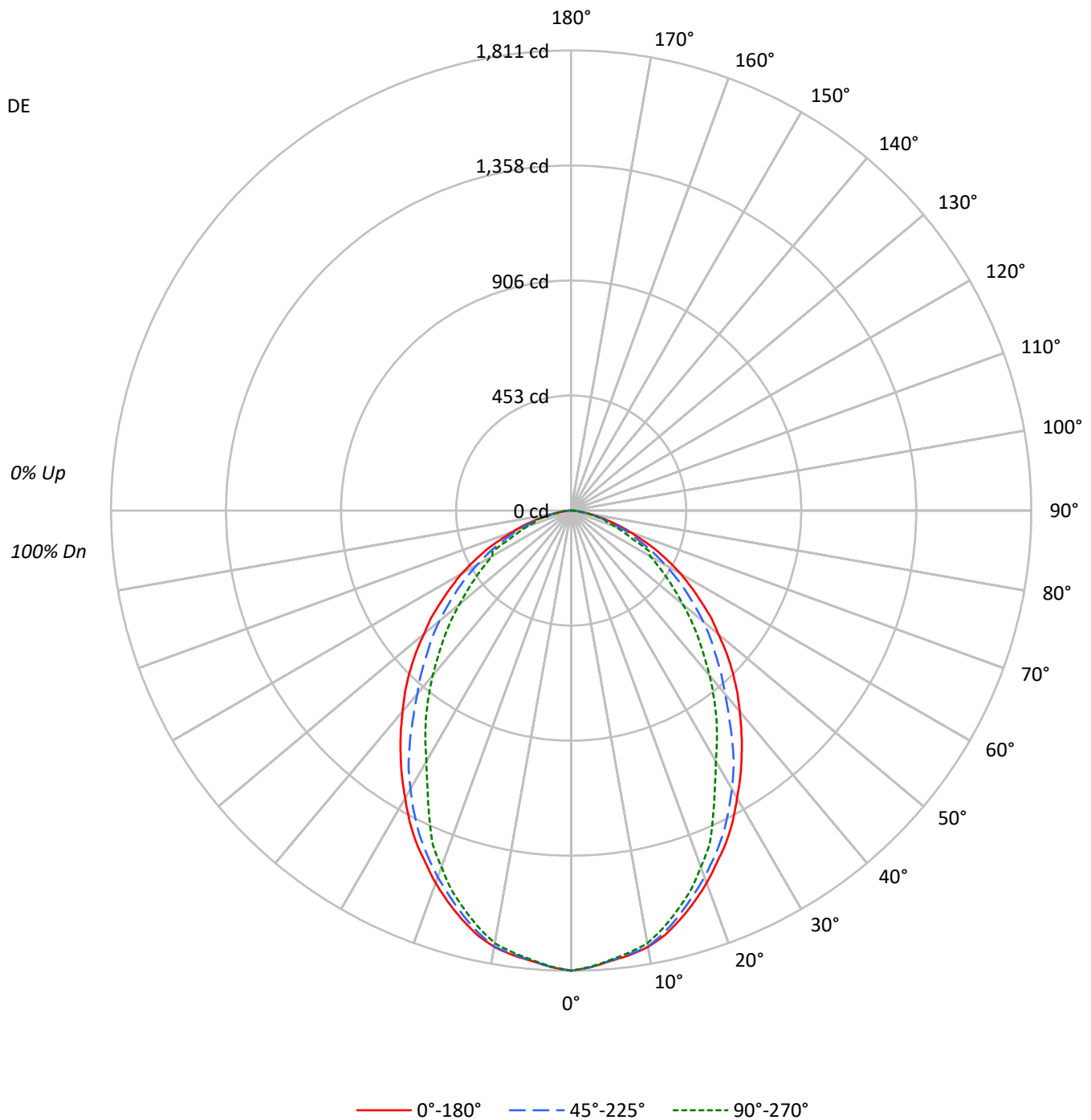
Input Watts (W): 43.2
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P560193

CATALOG NUMBER: FSR-12-2-LD4-2HI-35-UNV-81-84-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P560193

CATALOG NUMBER: FSR-12-2-LD4-2HI-35-UNV-81-84-EDD

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	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°	9746	9746	9746
5°	9614	9602	9591
10°	9530	9519	9450
15°	9273	9180	9051
20°	8933	8789	8549
25°	8565	8379	7857
30°	8118	7858	7078
35°	7689	7263	6547
40°	7251	6619	5957
45°	6836	6119	5386
50°	6328	5679	4803
55°	5854	5147	4302
60°	5364	4597	3853
65°	4718	4025	3413
70°	3887	3525	2899
75°	3090	2699	2830
80°	2077	1946	1816
85°	1291	1550	1809

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6836 cd/sqm



TEST NUMBER: P560193

CATALOG NUMBER: FSR-12-2-LD4-2HI-35-UNV-81-84-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	168.6	4.7
10°-20°	462.6	13.0
20°-30°	640.5	18.0
30°-40°	682.9	19.2
40°-50°	623.0	17.5
50°-60°	488.1	13.7
60°-70°	318.1	8.9
70°-80°	140.9	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°	1271.7	35.8
0°-40°	1954.6	55.0
0°-60°	3065.7	86.2
0°-90°	3555.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3555.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1811	1811	1811	1811	1811	
5°	1780	1777	1777	1775	1775	169
15°	1664	1664	1648	1631	1624	468
25°	1442	1434	1411	1361	1323	662
35°	1170	1162	1105	1022	996	732
45°	898	879	804	737	708	692
55°	624	605	548	484	458	560
65°	370	350	316	322	268	365
75°	149	138	130	124	136	159
85°	21	23	25	27	29	29
90°	0	0	0	0	0	

TEST NUMBER: P560193

CATALOG NUMBER: FSR-12-2-LD4-2HI-35-UNV-81-84-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1810.9	1810.9	1810.9	1810.9	1810.9
2.5°	1798.3	1798.3	1798.3	1796.2	1796.2
5°	1779.5	1777.4	1777.4	1775.3	1775.3
7.5°	1764.8	1762.7	1760.6	1758.5	1754.3
10°	1743.9	1743.9	1741.8	1731.3	1729.2
12.5°	1710.4	1708.3	1699.9	1685.3	1681.1
15°	1664.3	1664.3	1647.6	1630.8	1624.5
17.5°	1614.1	1612.0	1591.1	1574.3	1565.9
20°	1559.7	1555.5	1534.5	1507.3	1492.7
22.5°	1498.9	1498.9	1473.8	1438.2	1423.6
25°	1442.4	1434.0	1411.0	1360.8	1323.1
27.5°	1377.5	1365.0	1339.8	1268.7	1224.7
30°	1306.3	1300.1	1264.5	1172.4	1138.9
32.5°	1239.3	1228.9	1191.2	1094.9	1067.7
35°	1170.3	1161.9	1105.4	1021.6	996.5
37.5°	1101.2	1090.7	1019.5	952.5	921.1
40°	1032.1	1019.5	942.1	881.4	847.9
42.5°	967.2	950.4	875.1	810.2	772.5
45°	898.1	879.3	803.9	736.9	707.6
47.5°	829.0	812.3	743.2	674.1	640.6
50°	755.8	741.1	678.3	609.2	573.6
52.5°	695.0	672.0	611.3	542.2	512.9
55°	623.9	605.0	548.5	483.6	458.5
57.5°	559.0	540.1	487.8	427.1	406.1
60°	498.3	471.0	427.1	374.7	358.0
62.5°	431.3	410.3	372.6	328.7	349.6
65°	370.5	349.6	316.1	322.4	268.0
67.5°	303.6	293.1	263.8	234.5	226.1
70°	247.0	234.5	224.0	192.6	184.2
72.5°	196.8	184.2	169.6	152.8	146.5
75°	148.6	138.2	129.8	123.5	136.1
77.5°	102.6	98.4	92.1	85.8	83.7
80°	67.0	64.9	62.8	60.7	58.6
82.5°	39.8	39.8	39.8	39.8	39.8
85°	20.9	23.0	25.1	27.2	29.3
87.5°	12.6	12.6	14.7	16.7	18.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)