

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: P560355

Luminaire Tested: FSR-12-2-LD4-2HI-50-UNV-93-85-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560355
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-50-UNV-93-85-EDD
Description: 1X2 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3775.0 lumens
Efficiency: N/A
Efficacy: 87.4 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

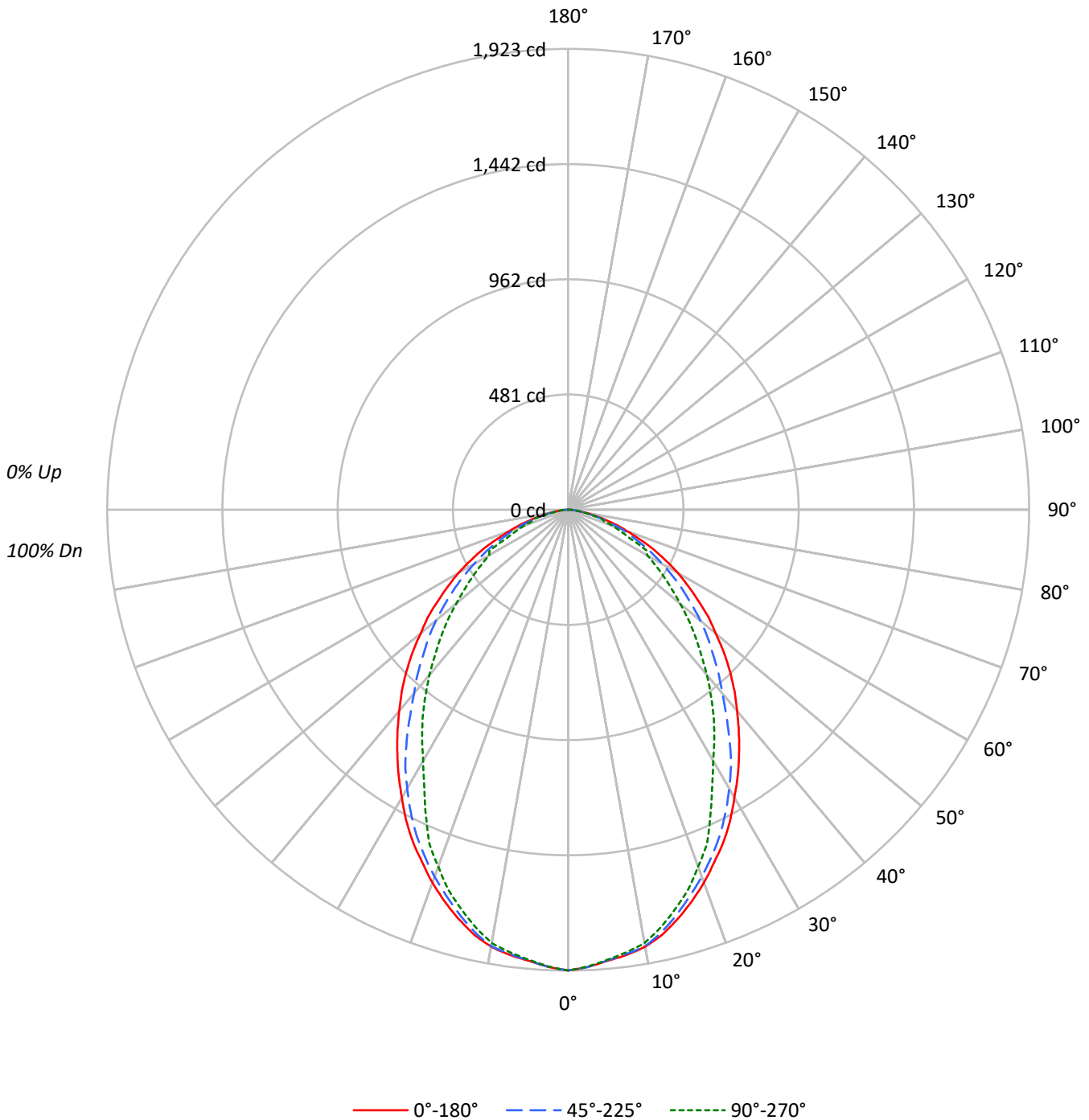
Input Watts (W): 43.2
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	10349	10349	10349
5°	10209	10197	10184
10°	10120	10108	10035
15°	9847	9748	9612
20°	9486	9333	9078
25°	9096	8897	8343
30°	8621	8344	7515
35°	8165	7712	6953
40°	7700	7028	6325
45°	7259	6497	5719
50°	6719	6031	5100
55°	6216	5465	4568
60°	5695	4881	4091
65°	5011	4275	3623
70°	4127	3744	3078
75°	3281	2865	3005
80°	2204	2067	1928
85°	1371	1649	1920

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 7259 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	179.0	4.7
10°-20°	491.2	13.0
20°-30°	680.1	18.0
30°-40°	725.2	19.2
40°-50°	661.6	17.5
50°-60°	518.3	13.7
60°-70°	337.8	8.9
70°-80°	149.7	4.0
80°-90°	32.1	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°	1350.3	35.8
0°-40°	2075.5	55.0
0°-60°	3255.4	86.2
0°-90°	3775.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3775.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1923	1923	1923	1923	1923	
5°	1890	1887	1887	1885	1885	179
15°	1767	1767	1750	1732	1725	497
25°	1532	1523	1498	1445	1405	703
35°	1243	1234	1174	1085	1058	777
45°	954	934	854	782	751	735
55°	662	642	582	514	487	594
65°	394	371	336	342	284	388
75°	158	147	138	131	144	169
85°	22	24	27	29	31	31
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1922.9	1922.9	1922.9	1922.9	1922.9
2.5°	1909.6	1909.6	1909.6	1907.4	1907.4
5°	1889.6	1887.4	1887.4	1885.1	1885.1
7.5°	1874.0	1871.8	1869.6	1867.4	1862.9
10°	1851.8	1851.8	1849.6	1838.5	1836.2
12.5°	1816.2	1814.0	1805.1	1789.6	1785.1
15°	1767.3	1767.3	1749.5	1731.8	1725.1
17.5°	1714.0	1711.7	1689.5	1671.7	1662.8
20°	1656.2	1651.7	1629.5	1600.6	1585.0
22.5°	1591.7	1591.7	1565.0	1527.2	1511.7
25°	1531.7	1522.8	1498.3	1445.0	1405.0
27.5°	1462.8	1449.4	1422.7	1347.2	1300.5
30°	1387.2	1380.5	1342.7	1244.9	1209.3
32.5°	1316.0	1304.9	1264.9	1162.7	1133.8
35°	1242.7	1233.8	1173.8	1084.8	1058.2
37.5°	1169.3	1158.2	1082.6	1011.5	978.1
40°	1096.0	1082.6	1000.4	935.9	900.3
42.5°	1027.0	1009.3	929.2	860.3	820.3
45°	953.7	933.7	853.6	782.5	751.4
47.5°	880.3	862.5	789.2	715.8	680.3
50°	802.5	787.0	720.3	646.9	609.1
52.5°	738.1	713.6	649.1	575.8	544.6
55°	662.5	642.5	582.4	513.5	486.8
57.5°	593.6	573.5	518.0	453.5	431.3
60°	529.1	500.2	453.5	397.9	380.1
62.5°	457.9	435.7	395.7	349.0	371.2
65°	393.5	371.2	335.7	342.3	284.5
67.5°	322.3	311.2	280.1	249.0	240.1
70°	262.3	249.0	237.9	204.5	195.6
72.5°	209.0	195.6	180.1	162.3	155.6
75°	157.8	146.7	137.8	131.2	144.5
77.5°	108.9	104.5	97.8	91.1	88.9
80°	71.1	68.9	66.7	64.5	62.2
82.5°	42.2	42.2	42.2	42.2	42.2
85°	22.2	24.5	26.7	28.9	31.1
87.5°	13.3	13.3	15.6	17.8	20.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)