

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: P560267

Luminaire Tested: FSR-12-2-LD4-2HI-40-UNV-81-94-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560267
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-81-94-EDD
Description: 1X2 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .187 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: 3599.0 lumens
Efficiency: N/A
Efficacy: 83.3 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

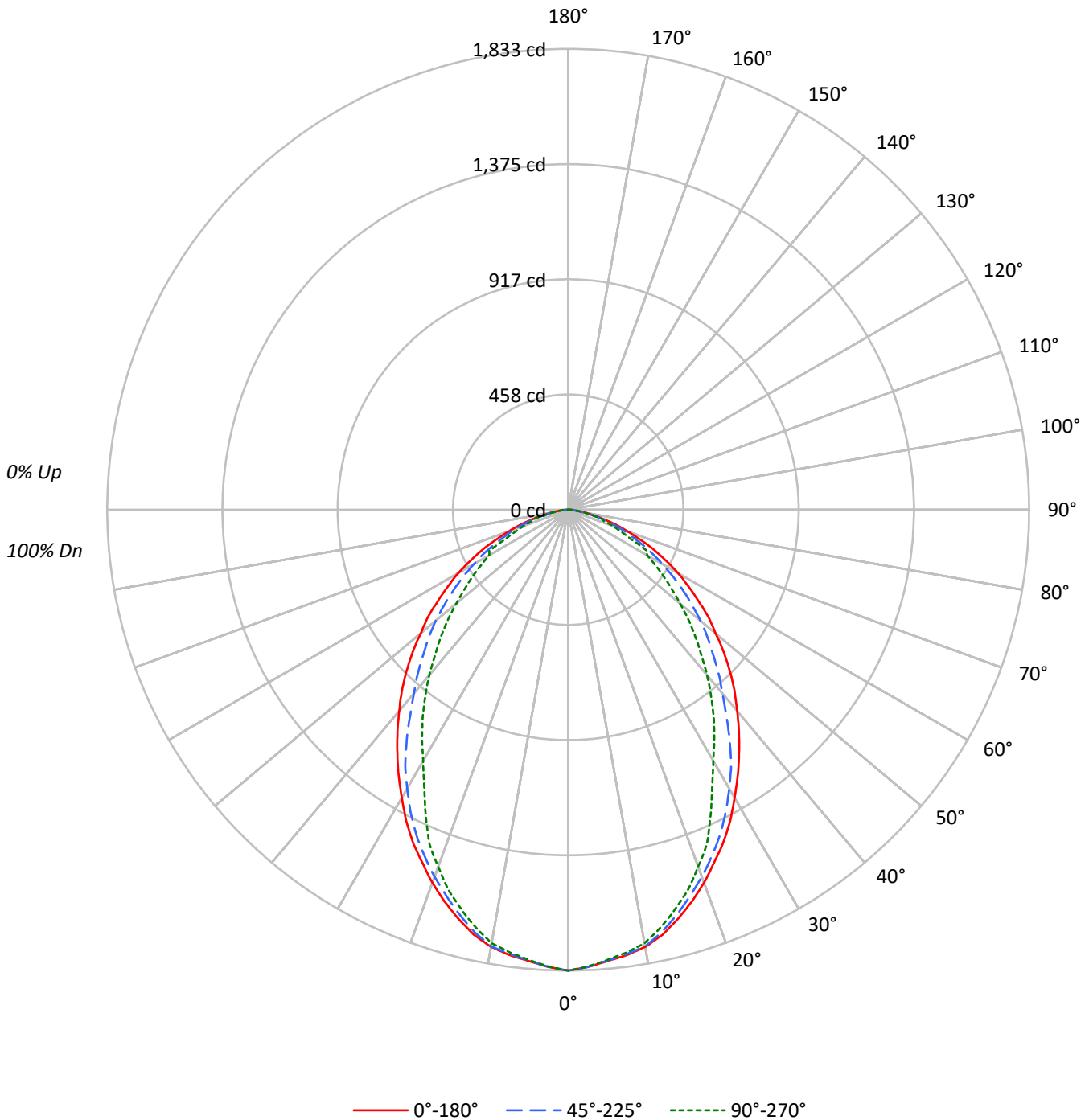
Input Watts (W): 43.2
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	9867	9867	9867
5°	9733	9721	9710
10°	9648	9636	9567
15°	9388	9294	9164
20°	9044	8897	8655
25°	8672	8483	7954
30°	8219	7955	7165
35°	7784	7352	6628
40°	7341	6700	6031
45°	6920	6195	5453
50°	6406	5750	4862
55°	5926	5210	4355
60°	5429	4654	3901
65°	4777	4075	3455
70°	3936	3569	2935
75°	3130	2732	2865
80°	2101	1971	1838
85°	1309	1568	1834

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6920 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	170.7	4.7
10°-20°	468.3	13.0
20°-30°	648.4	18.0
30°-40°	691.4	19.2
40°-50°	630.7	17.5
50°-60°	494.1	13.7
60°-70°	322.0	8.9
70°-80°	142.7	4.0
80°-90°	30.6	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°	1287.4	35.8
0°-40°	1978.8	55.0
0°-60°	3103.6	86.2
0°-90°	3599.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3599.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1833	1833	1833	1833	1833	
5°	1802	1799	1799	1797	1797	171
15°	1685	1685	1668	1651	1645	474
25°	1460	1452	1428	1378	1340	670
35°	1185	1176	1119	1034	1009	741
45°	909	890	814	746	716	700
55°	632	612	555	490	464	566
65°	375	354	320	326	271	370
75°	150	140	131	125	138	161
85°	21	23	25	28	30	29
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1833.3	1833.3	1833.3	1833.3	1833.3
2.5°	1820.6	1820.6	1820.6	1818.4	1818.4
5°	1801.5	1799.4	1799.4	1797.3	1797.3
7.5°	1786.7	1784.5	1782.4	1780.3	1776.1
10°	1765.5	1765.5	1763.3	1752.7	1750.6
12.5°	1731.6	1729.4	1721.0	1706.1	1701.9
15°	1684.9	1684.9	1668.0	1651.0	1644.7
17.5°	1634.1	1631.9	1610.7	1593.8	1585.3
20°	1579.0	1574.7	1553.5	1526.0	1511.1
22.5°	1517.5	1517.5	1492.1	1456.0	1441.2
25°	1460.3	1451.8	1428.5	1377.6	1339.5
27.5°	1394.6	1381.8	1356.4	1284.4	1239.9
30°	1322.5	1316.1	1280.1	1186.9	1153.0
32.5°	1254.7	1244.1	1205.9	1108.4	1080.9
35°	1184.7	1176.3	1119.0	1034.3	1008.8
37.5°	1114.8	1104.2	1032.1	964.3	932.5
40°	1044.9	1032.1	953.7	892.3	858.4
42.5°	979.2	962.2	885.9	820.2	782.1
45°	909.2	890.1	813.9	746.0	716.4
47.5°	839.3	822.3	752.4	682.4	648.5
50°	765.1	750.3	686.7	616.7	580.7
52.5°	703.6	680.3	618.9	548.9	519.3
55°	631.6	612.5	555.3	489.6	464.1
57.5°	565.9	546.8	493.8	432.4	411.2
60°	504.4	476.9	432.4	379.4	362.4
62.5°	436.6	415.4	377.3	332.7	353.9
65°	375.1	353.9	320.0	326.4	271.3
67.5°	307.3	296.7	267.0	237.4	228.9
70°	250.1	237.4	226.8	195.0	186.5
72.5°	199.2	186.5	171.7	154.7	148.4
75°	150.5	139.9	131.4	125.0	137.8
77.5°	103.9	99.6	93.3	86.9	84.8
80°	67.8	65.7	63.6	61.5	59.3
82.5°	40.3	40.3	40.3	40.3	40.3
85°	21.2	23.3	25.4	27.6	29.7
87.5°	12.7	12.7	14.8	17.0	19.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)