

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: P560235

Luminaire Tested: FSR-12-2-LD4-2HI-35-UNV-93-94-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560235
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-93-94-EDD
Description: 1X2 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 CLEAR TEMPER
GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3758.0 lumens
Efficiency: N/A
Efficacy: 87.0 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

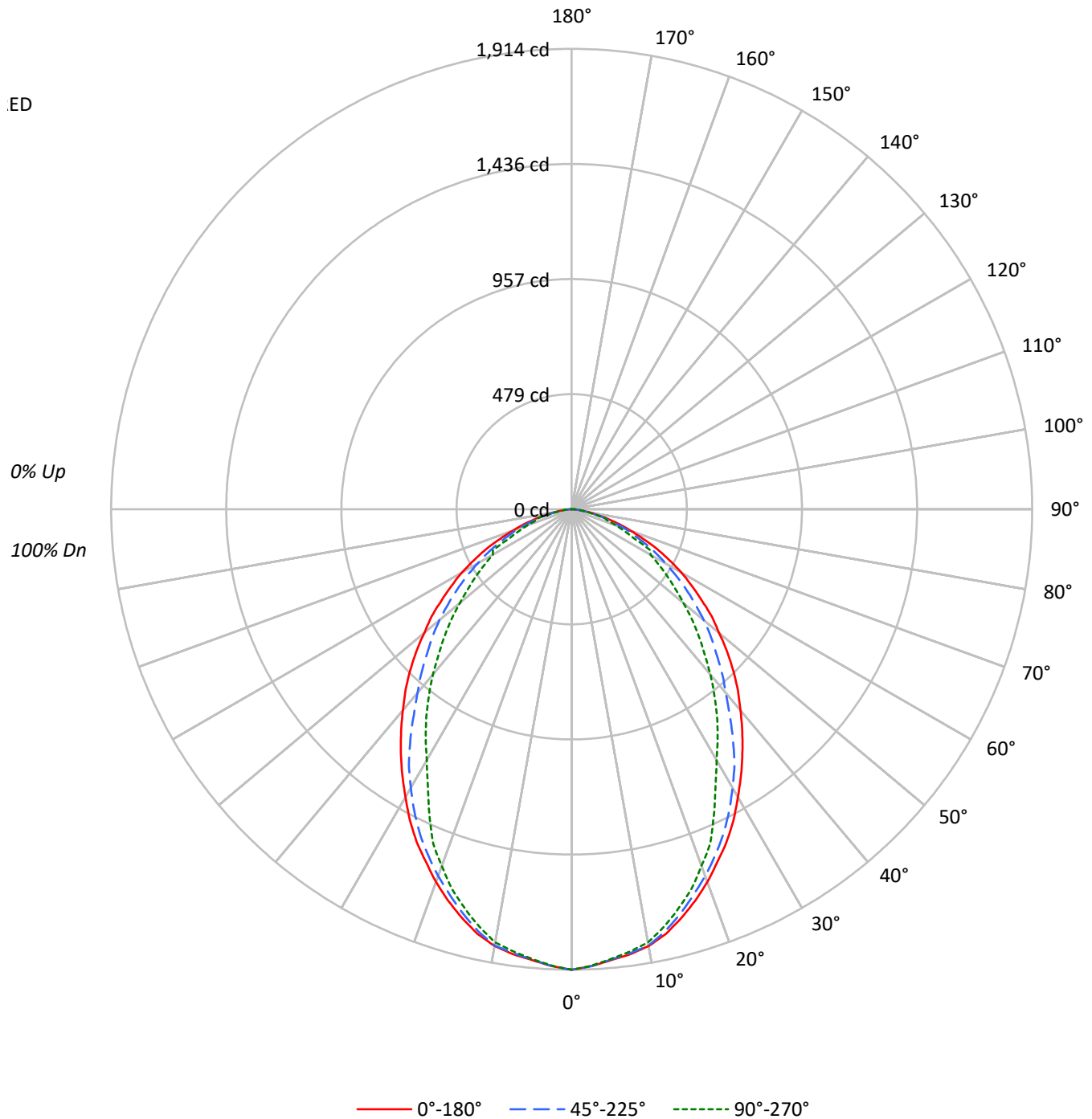
Input Watts (W): 43.2
Input Voltage (V):
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20																		
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°	10303	10303	10303
5°	10163	10151	10139
10°	10075	10062	9990
15°	9803	9704	9568
20°	9443	9291	9037
25°	9055	8858	8305
30°	8582	8307	7482
35°	8128	7677	6921
40°	7665	6997	6297
45°	7226	6468	5693
50°	6689	6003	5077
55°	6188	5440	4548
60°	5669	4860	4073
65°	4988	4256	3608
70°	4109	3726	3064
75°	3267	2853	2990
80°	2194	2058	1922
85°	1365	1643	1914

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 7226 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	178.2	4.7
10°-20°	489.0	13.0
20°-30°	677.0	18.0
30°-40°	721.9	19.2
40°-50°	658.6	17.5
50°-60°	516.0	13.7
60°-70°	336.3	8.9
70°-80°	149.0	4.0
80°-90°	32.0	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°	1344.3	35.8
0°-40°	2066.2	55.0
0°-60°	3240.8	86.2
0°-90°	3758.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3758.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1914	1914	1914	1914	1914	
5°	1881	1879	1879	1877	1877	179
15°	1759	1759	1742	1724	1717	495
25°	1525	1516	1492	1438	1399	700
35°	1237	1228	1168	1080	1053	773
45°	949	930	850	779	748	731
55°	660	640	580	511	485	592
65°	392	370	334	341	283	386
75°	157	146	137	131	144	168
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°	1914.3	1914.3	1914.3	1914.3	1914.3
2.5°	1901.0	1901.0	1901.0	1898.8	1898.8
5°	1881.1	1878.9	1878.9	1876.7	1876.7
7.5°	1865.6	1863.4	1861.2	1858.9	1854.5
10°	1843.5	1843.5	1841.2	1830.2	1828.0
12.5°	1808.0	1805.8	1797.0	1781.5	1777.1
15°	1759.4	1759.4	1741.7	1724.0	1717.3
17.5°	1706.2	1704.0	1681.9	1664.2	1655.3
20°	1648.7	1644.3	1622.2	1593.4	1577.9
22.5°	1584.5	1584.5	1558.0	1520.4	1504.9
25°	1524.8	1515.9	1491.6	1438.5	1398.6
27.5°	1456.2	1442.9	1416.3	1341.1	1294.6
30°	1380.9	1374.3	1336.7	1239.3	1203.9
32.5°	1310.1	1299.1	1259.2	1157.4	1128.6
35°	1237.1	1228.2	1168.5	1080.0	1053.4
37.5°	1164.1	1153.0	1077.7	1006.9	973.7
40°	1091.0	1077.7	995.9	931.7	896.3
42.5°	1022.4	1004.7	925.0	856.4	816.6
45°	949.4	929.5	849.8	779.0	748.0
47.5°	876.4	858.7	785.6	712.6	677.2
50°	798.9	783.4	717.0	644.0	606.4
52.5°	734.7	710.4	646.2	573.2	542.2
55°	659.5	639.6	579.8	511.2	484.7
57.5°	590.9	571.0	515.6	451.5	429.3
60°	526.7	497.9	451.5	396.1	378.4
62.5°	455.9	433.8	393.9	347.4	369.6
65°	391.7	369.6	334.2	340.8	283.3
67.5°	320.9	309.8	278.8	247.9	239.0
70°	261.1	247.9	236.8	203.6	194.7
72.5°	208.0	194.7	179.3	161.6	154.9
75°	157.1	146.1	137.2	130.6	143.8
77.5°	108.4	104.0	97.4	90.7	88.5
80°	70.8	68.6	66.4	64.2	62.0
82.5°	42.0	42.0	42.0	42.0	42.0
85°	22.1	24.3	26.6	28.8	31.0
87.5°	13.3	13.3	15.5	17.7	19.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)