

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: P590862

Luminaire Tested: FSR-24-2-LD4-4LO-40-UNV-93-85-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P590862
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-135-1)
Test Lab: INNOVATION CENTER
Issue Date: 12/8/2021
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: FAIL-SAFE
Catalog Number: FSR-24-2-LD4-4LO-40-UNV-93-85-EDD
Description: 2X2 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5781.0 lumens
Efficiency: N/A
Efficacy: 123.5 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

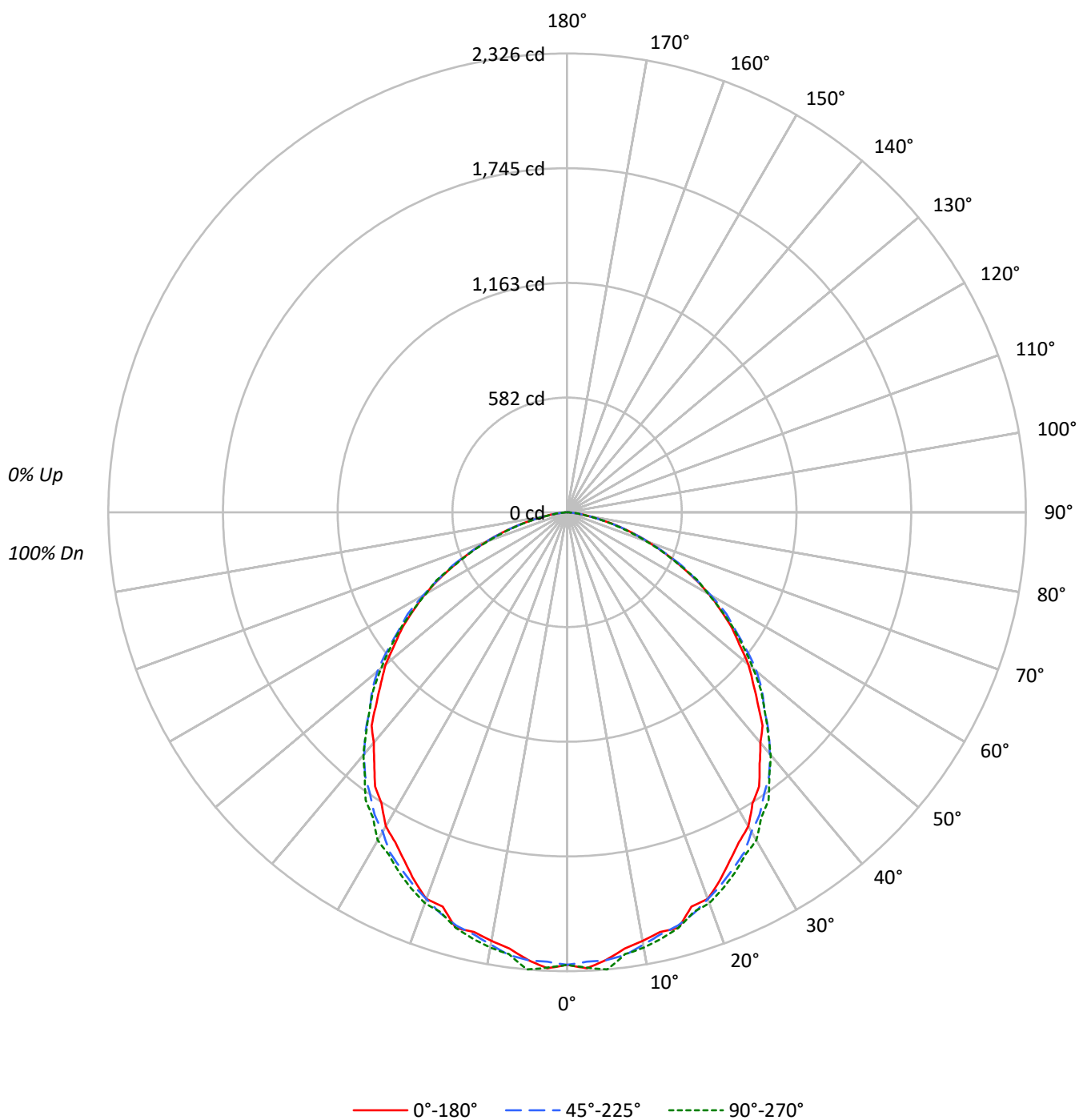
Input Watts (W): 46.8
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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					0
RW	70	50	30	10	70	50	30	10		50	30	10		50	30	10		50	30	10
RCR																				
0	119	119	119	119	116	116	116	116		111	111	111		106	106	106		102	102	102
1	110	105	101	98	107	103	100	96		99	96	93		95	93	90		91	90	88
2	100	93	86	81	98	91	85	80		87	82	78		84	80	76		81	78	75
3	92	82	74	68	89	80	73	67		77	71	66		75	69	65		72	68	64
4	84	73	64	58	82	71	64	58		69	62	57		67	61	56		65	59	55
5	78	65	57	50	76	64	56	50		62	55	49		60	54	49		58	53	48
6	72	59	50	44	70	58	50	44		56	49	43		54	48	43		53	47	43
7	67	53	45	39	65	53	45	39		51	44	39		50	43	38		48	42	38
8	62	49	41	35	61	48	40	35		47	40	34		46	39	34		44	39	34
9	58	45	37	31	57	44	37	31		43	36	31		42	36	31		41	35	31
10	54	41	34	29	53	41	33	28		40	33	28		39	33	28		38	32	28

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6173	6173	6173
5°	6152	6155	6284
10°	6027	6080	6123
15°	6075	6042	6076
20°	5972	5972	6036
25°	5789	5915	5980
30°	5709	5810	5964
35°	5575	5721	5849
40°	5358	5616	5641
45°	5196	5381	5388
50°	5025	5252	5151
55°	4788	4881	4846
60°	4477	4522	4441
65°	3992	4094	3964
70°	3426	3437	3341
75°	2713	2706	2602
80°	1818	1767	1698
85°	988	979	914

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°

Vertical Angle: 45°

Luminance: 5519 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	215.8	3.7
10°-20°	611.5	10.6
20°-30°	916.2	15.8
30°-40°	1085.8	18.8
40°-50°	1087.8	18.8
50°-60°	923.4	16.0
60°-70°	622.6	10.8
70°-80°	273.6	4.7
80°-90°	44.5	0.8
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°	1743.4	30.2
0°-40°	2829.2	48.9
0°-60°	4840.5	83.7
0°-90°	5781.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5781.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2294	2294	2294	2294	2294	
5°	2278	2272	2278	2272	2326	215
15°	2181	2155	2169	2180	2181	608
25°	1950	1960	1992	2018	2014	901
35°	1697	1702	1741	1782	1780	1054
45°	1365	1391	1414	1450	1416	1056
55°	1021	1014	1040	1033	1033	908
65°	627	619	643	618	622	624
75°	261	256	260	242	250	280
85°	32	31	32	31	30	46
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2293.8	2293.8	2293.8	2293.8	2293.8
2.5°	2313.6	2296.1	2279.8	2298.8	2310.3
5°	2277.5	2272.1	2278.4	2271.5	2326.3
7.5°	2230.7	2251.1	2263.0	2255.6	2258.8
10°	2205.8	2198.7	2225.0	2243.4	2240.7
12.5°	2179.1	2189.8	2191.3	2211.1	2212.9
15°	2180.6	2155.4	2168.8	2180.0	2180.9
17.5°	2095.9	2123.2	2132.3	2158.1	2126.1
20°	2085.6	2065.7	2085.6	2111.9	2107.8
22.5°	2021.9	1999.7	2042.3	2065.7	2064.2
25°	1949.6	1960.3	1992.3	2018.3	2014.2
27.5°	1886.2	1898.7	1944.3	1980.1	1957.0
30°	1837.4	1831.2	1869.7	1901.6	1919.4
32.5°	1750.0	1772.5	1817.5	1849.2	1832.3
35°	1697.0	1702.0	1741.4	1781.7	1780.5
37.5°	1604.3	1627.7	1683.1	1694.3	1684.0
40°	1525.2	1548.6	1598.7	1610.8	1605.8
42.5°	1466.9	1471.0	1514.0	1527.9	1505.7
45°	1365.3	1390.8	1413.9	1450.3	1415.9
47.5°	1278.8	1290.7	1340.4	1350.2	1332.1
50°	1200.3	1204.5	1254.5	1242.4	1230.5
52.5°	1101.7	1119.2	1147.3	1145.0	1131.0
55°	1020.6	1013.8	1040.4	1033.3	1033.0
57.5°	923.1	935.0	956.9	945.6	927.6
60°	831.9	832.2	840.2	827.5	825.1
62.5°	730.3	733.9	735.7	720.0	745.4
65°	627.0	618.7	643.0	618.4	622.5
67.5°	531.9	536.0	533.7	518.3	524.2
70°	435.4	440.7	436.8	419.4	424.7
72.5°	347.1	340.6	344.7	322.8	332.9
75°	260.9	255.6	260.3	242.0	250.3
77.5°	177.7	181.8	178.9	169.1	174.7
80°	117.3	114.0	114.0	108.4	109.6
82.5°	68.4	65.2	64.3	62.5	65.2
85°	32.0	31.1	31.7	30.8	29.6
87.5°	11.6	11.8	11.8	11.3	10.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)