

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: P562069

Luminaire Tested: FSR-24-4-LD4-1HI-40-UNV-82-86-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P562069
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-24-4-LD4-1HI-40-UNV-82-86-EDD
Description: 2X4 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4357.0 lumens
Efficiency: N/A
Efficacy: 100.9 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

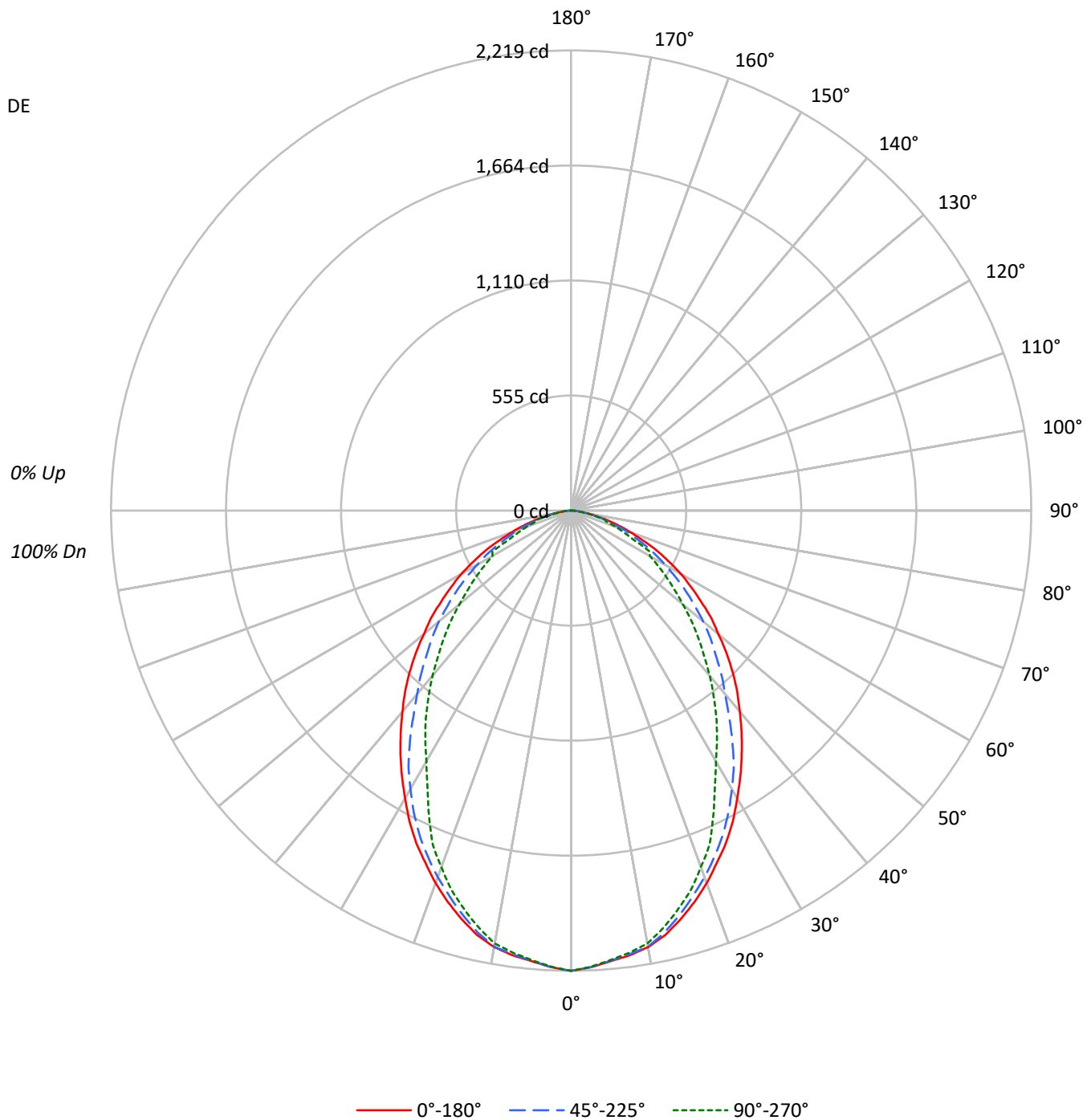
Input Watts (W): 43.2
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P562069

CATALOG NUMBER: FSR-24-4-LD4-1HI-40-UNV-82-86-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P562069

CATALOG NUMBER: FSR-24-4-LD4-1HI-40-UNV-82-86-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°	2986	2986	2986
5°	2946	2942	2939
10°	2920	2917	2895
15°	2841	2813	2773
20°	2737	2693	2619
25°	2624	2567	2407
30°	2487	2408	2169
35°	2356	2225	2006
40°	2222	2028	1825
45°	2094	1875	1650
50°	1939	1740	1472
55°	1794	1577	1318
60°	1643	1408	1181
65°	1446	1233	1046
70°	1191	1080	888
75°	947	827	867
80°	636	597	556
85°	397	475	554

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2094 cd/sqm

TEST NUMBER: P562069

CATALOG NUMBER: FSR-24-4-LD4-1HI-40-UNV-82-86-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	206.6	4.7
10°-20°	567.0	13.0
20°-30°	785.0	18.0
30°-40°	837.0	19.2
40°-50°	763.6	17.5
50°-60°	598.2	13.7
60°-70°	389.9	8.9
70°-80°	172.7	4.0
80°-90°	37.1	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°	1558.5	35.8
0°-40°	2395.5	55.0
0°-60°	3757.3	86.2
0°-90°	4357.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4357.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2219	2219	2219	2219	2219	
5°	2181	2178	2178	2176	2176	207
15°	2040	2040	2019	1999	1991	573
25°	1768	1758	1729	1668	1622	812
35°	1434	1424	1355	1252	1221	897
45°	1101	1078	985	903	867	848
55°	765	742	672	593	562	686
65°	454	428	387	395	328	448
75°	182	169	159	151	167	195
85°	26	28	31	33	36	36
90°	0	0	0	0	0	



TEST NUMBER: P562069

CATALOG NUMBER: FSR-24-4-LD4-1HI-40-UNV-82-86-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2219.4	2219.4	2219.4	2219.4	2219.4
2.5°	2204.0	2204.0	2204.0	2201.4	2201.4
5°	2180.9	2178.3	2178.3	2175.8	2175.8
7.5°	2163.0	2160.4	2157.8	2155.3	2150.1
10°	2137.3	2137.3	2134.7	2121.9	2119.3
12.5°	2096.2	2093.7	2083.4	2065.5	2060.3
15°	2039.8	2039.8	2019.3	1998.7	1991.0
17.5°	1978.2	1975.6	1950.0	1929.5	1919.2
20°	1911.5	1906.4	1880.7	1847.4	1829.4
22.5°	1837.1	1837.1	1806.3	1762.7	1744.7
25°	1767.8	1757.6	1729.3	1667.8	1621.6
27.5°	1688.3	1672.9	1642.1	1554.9	1501.0
30°	1601.0	1593.3	1549.7	1436.8	1395.8
32.5°	1518.9	1506.1	1459.9	1341.9	1308.5
35°	1434.3	1424.0	1354.7	1252.1	1221.3
37.5°	1349.6	1336.8	1249.5	1167.4	1128.9
40°	1264.9	1249.5	1154.6	1080.2	1039.1
42.5°	1185.4	1164.9	1072.5	993.0	946.8
45°	1100.7	1077.6	985.3	903.2	867.2
47.5°	1016.0	995.5	910.9	826.2	785.1
50°	926.2	908.3	831.3	746.6	703.0
52.5°	851.8	823.6	749.2	664.5	628.6
55°	764.6	741.5	672.2	592.7	561.9
57.5°	685.1	662.0	597.8	523.4	497.8
60°	610.7	577.3	523.4	459.3	438.7
62.5°	528.6	502.9	456.7	402.8	428.5
65°	454.1	428.5	387.4	395.1	328.4
67.5°	372.0	359.2	323.3	287.4	277.1
70°	302.8	287.4	274.5	236.1	225.8
72.5°	241.2	225.8	207.8	187.3	179.6
75°	182.2	169.3	159.1	151.4	166.8
77.5°	125.7	120.6	112.9	105.2	102.6
80°	82.1	79.5	77.0	74.4	71.8
82.5°	48.7	48.7	48.7	48.7	48.7
85°	25.7	28.2	30.8	33.4	35.9
87.5°	15.4	15.4	18.0	20.5	23.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)