

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: FAIL-SAFE

Report Number: P311622

Luminaire Tested: **24FCZ2-55HE-UNV-L82765-S-CA08-W2A-U-5700K**

Issue Date: 3/3/2020

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.

Test Information

Test Method: LM-79-08
Report Number: P311622
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-1)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 24FCZ2-55HE-UNV-L82765-S-CA08-W2A-U-5700K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS, 0.08" ACRYLIC SHEET
Light Source: (336) 5700K TUNABLE CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment:

<u>Sample No.</u>	<u>Condition</u>	<u>Description</u>
AS-5443-1	Good	WHITE TWIN R-EVOLVE FLOOD
AS-5443-2	Good	REFLECTOR
AS-5443-3	Good	DRIVER
AS-5443-4	Good	UPPER MODULE
AS-5443-5	Good	LENS
AS-5443-6	Good	DRIVER 2
AS-5443-7	Good	TRIM RING

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5558.0 lumens
Efficiency: N/A
Efficacy: 125.5 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

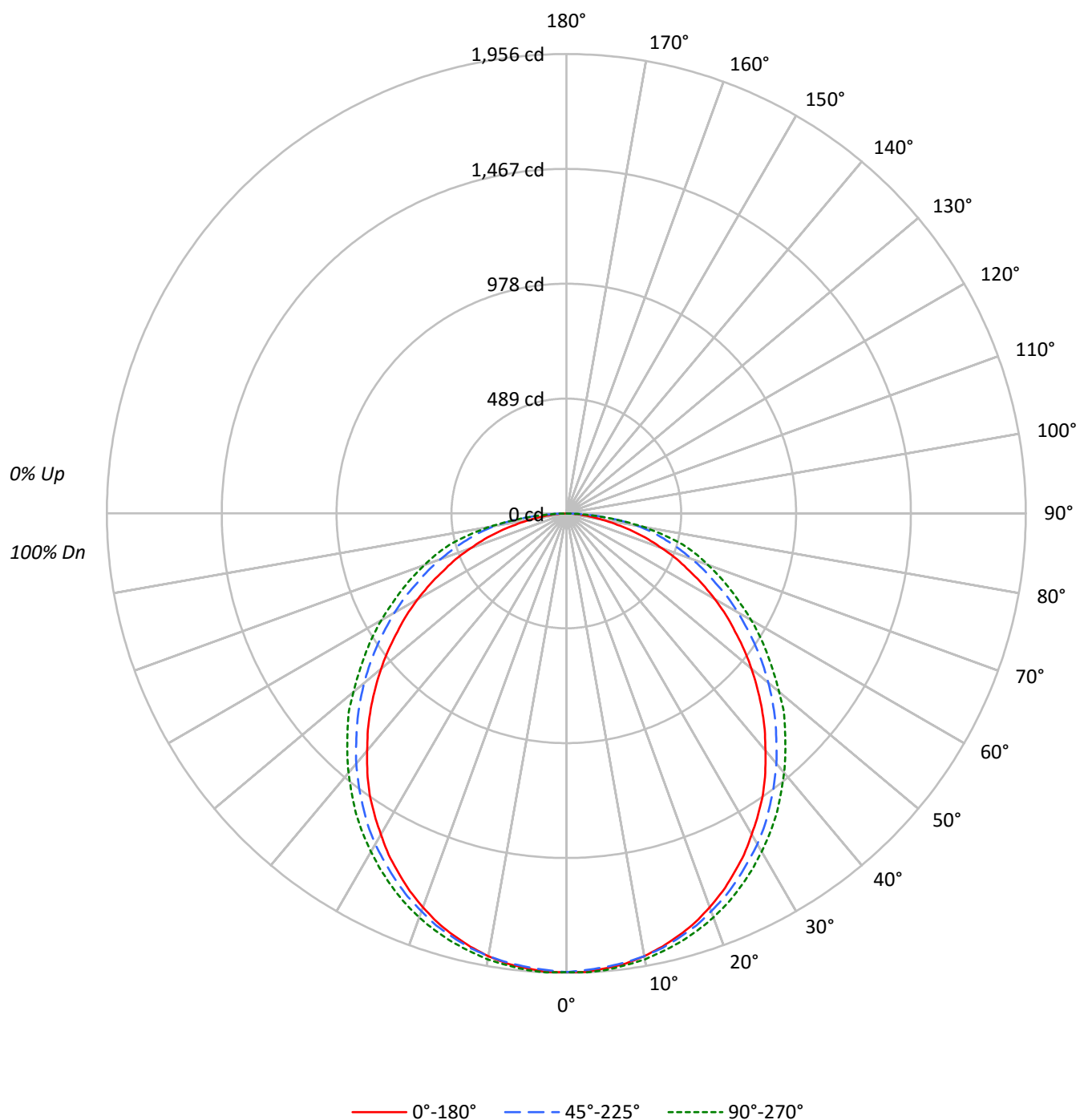
Input Watts (W): 44.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P311622

CATALOG NUMBER: 24FCZ2-55HE-UNV-L82765-S-CA08-W2A-U-5700K

Luminous Intensity Polar Plot





TEST NUMBER: P311622

CATALOG NUMBER: 24FCZ2-55HE-UNV-L82765-S-CA08-W2A-U-5700K

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		0
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		100
1	108	103	99	95	106	101	97	93	97	93	90		93	90	88		83
2	98	90	83	77	96	88	81	76	84	79	74		81	76	72		69
3	89	79	70	64	87	77	69	63	74	67	62		71	66	61		58
4	82	70	61	54	80	68	60	54	66	59	53		63	57	52		49
5	75	62	53	46	73	61	53	46	59	51	46		57	50	45		42
6	70	56	47	40	68	55	47	40	53	46	40		52	45	40		37
7	64	51	42	36	63	50	42	36	48	41	35		47	40	35		33
8	60	46	38	32	58	46	37	32	44	37	32		43	36	31		29
9	56	43	34	29	55	42	34	29	41	34	28		40	33	28		26
10	53	39	31	26	51	39	31	26	38	31	26		37	30	26		24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2627	2627	2627
5°	2625	2618	2635
10°	2615	2615	2634
15°	2589	2602	2629
20°	2556	2581	2621
25°	2508	2555	2605
30°	2452	2526	2584
35°	2398	2485	2563
40°	2316	2444	2533
45°	2241	2395	2506
50°	2154	2350	2476
55°	2058	2307	2452
60°	1962	2271	2447
65°	1838	2231	2462
70°	1701	2243	2528
75°	1524	2285	2671
80°	1231	2421	2613
85°	926	2126	2072



TEST NUMBER: P311622

CATALOG NUMBER: 24FCZ2-55HE-UNV-L82765-S-CA08-W2A-U-5700K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	184.8	3.3
10°-20°	528.2	9.5
20°-30°	794.0	14.3
30°-40°	945.8	17.0
40°-50°	967.9	17.4
50°-60°	871.4	15.7
60°-70°	684.3	12.3
70°-80°	444.2	8.0
80°-90°	137.4	2.5
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°	1507.0	27.1
0°-40°	2452.8	44.1
0°-60°	4292.1	77.2
0°-90°	5558.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5558.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1953	1953	1953	1953	1953	
5°	1944	1947	1938	1949	1951	185
15°	1859	1864	1868	1884	1887	524
25°	1690	1704	1721	1750	1755	778
35°	1460	1478	1513	1550	1561	911
45°	1178	1206	1259	1306	1317	908
55°	877	916	983	1034	1045	787
65°	577	621	701	759	773	575
75°	293	350	440	500	514	310
85°	60	111	138	134	134	73
90°	0	0	0	0	0	



TEST NUMBER: P311622

CATALOG NUMBER: 24FCZ2-55HE-UNV-L82765-S-CA08-W2A-U-5700K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1952.6	1952.6	1952.6	1952.6	1952.6
2.5°	1954.3	1954.3	1945.5	1954.3	1956.1
5°	1943.7	1947.3	1938.4	1949.0	1950.8
7.5°	1933.1	1933.1	1927.8	1938.4	1940.2
10°	1913.7	1915.5	1913.7	1926.1	1927.8
12.5°	1889.0	1892.5	1894.3	1906.7	1908.4
15°	1859.0	1864.3	1867.8	1883.7	1887.2
17.5°	1825.5	1830.7	1839.6	1857.2	1860.8
20°	1784.8	1791.9	1802.5	1825.5	1830.7
22.5°	1740.7	1747.8	1765.4	1786.6	1795.4
25°	1689.5	1703.6	1721.3	1749.5	1754.8
27.5°	1638.3	1650.7	1673.6	1703.6	1710.7
30°	1578.3	1597.7	1626.0	1656.0	1663.0
32.5°	1520.0	1539.5	1573.0	1604.8	1613.6
35°	1460.0	1477.7	1513.0	1550.0	1560.6
37.5°	1391.2	1414.1	1452.9	1490.0	1500.6
40°	1318.8	1347.0	1391.2	1430.0	1442.4
42.5°	1249.9	1279.9	1324.1	1366.4	1380.6
45°	1177.5	1205.8	1258.7	1306.4	1317.0
47.5°	1103.4	1135.2	1191.7	1239.3	1257.0
50°	1029.2	1062.8	1122.8	1172.2	1182.8
52.5°	955.1	990.4	1054.0	1106.9	1112.2
55°	877.4	916.3	983.3	1034.5	1045.1
57.5°	806.8	840.3	912.7	965.7	978.0
60°	729.1	766.2	843.9	893.3	909.2
62.5°	655.0	693.8	775.0	824.5	838.6
65°	577.3	621.4	700.9	759.1	773.3
67.5°	510.2	552.6	637.3	693.8	707.9
70°	432.5	480.2	570.2	628.5	642.6
72.5°	365.4	414.9	504.9	561.4	582.6
75°	293.1	349.6	439.6	499.6	513.7
77.5°	222.4	287.8	379.6	425.5	425.5
80°	158.9	227.7	312.5	333.7	337.2
82.5°	104.2	171.2	231.3	229.5	229.5
85°	60.0	111.2	137.7	134.2	134.2
87.5°	23.0	45.9	49.4	49.4	47.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)