

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: P311631

Luminaire Tested: **24FCZ2-55HE-UNV-L82765-S-CA125-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: P311631
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-CA125-W2A-U-5700K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS, 0.125" 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: 5539.0 lumens
Efficiency: N/A
Efficacy: 125.0 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

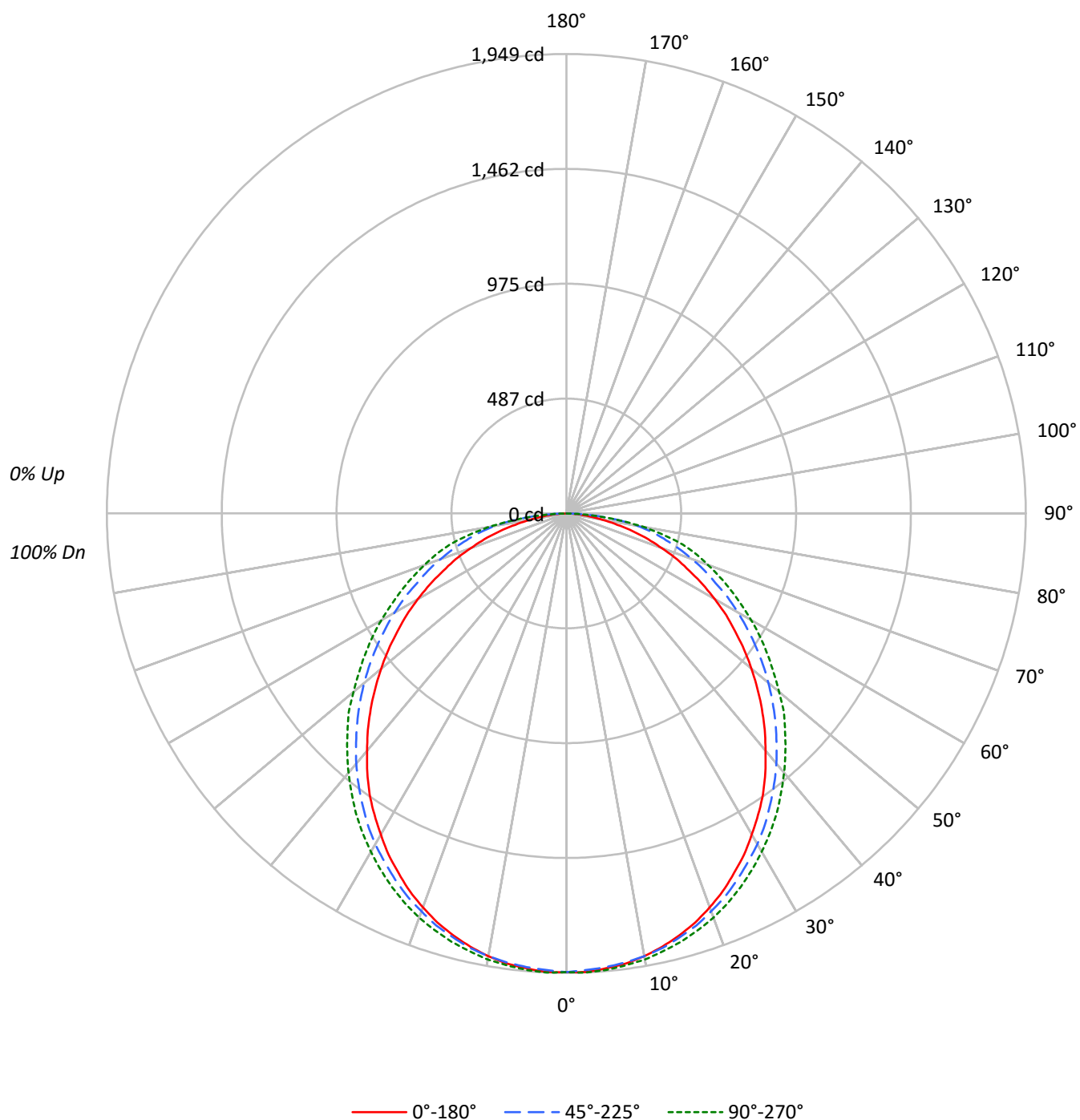
Input Watts (W): 44.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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		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°	2618	2618	2618
5°	2616	2609	2626
10°	2606	2606	2625
15°	2581	2593	2620
20°	2547	2572	2612
25°	2500	2547	2596
30°	2444	2518	2575
35°	2390	2477	2555
40°	2308	2435	2525
45°	2233	2387	2497
50°	2147	2342	2467
55°	2051	2299	2443
60°	1955	2263	2438
65°	1832	2224	2453
70°	1696	2236	2519
75°	1519	2277	2662
80°	1227	2413	2603
85°	923	2118	2064



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	184.2	3.3
10°-20°	526.4	9.5
20°-30°	791.3	14.3
30°-40°	942.5	17.0
40°-50°	964.6	17.4
50°-60°	868.4	15.7
60°-70°	682.0	12.3
70°-80°	442.6	8.0
80°-90°	136.9	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°	1501.9	27.1
0°-40°	2444.4	44.1
0°-60°	4277.4	77.2
0°-90°	5539.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5539.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1946	1946	1946	1946	1946	
5°	1937	1941	1932	1942	1944	184
15°	1853	1858	1861	1877	1881	522
25°	1684	1698	1715	1744	1749	776
35°	1455	1473	1508	1545	1555	908
45°	1174	1202	1254	1302	1312	905
55°	874	913	980	1031	1042	784
65°	575	619	698	756	771	573
75°	292	348	438	498	512	309
85°	60	111	137	134	134	72
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1945.9	1945.9	1945.9	1945.9	1945.9
2.5°	1947.6	1947.6	1938.8	1947.6	1949.4
5°	1937.1	1940.6	1931.8	1942.4	1944.1
7.5°	1926.5	1926.5	1921.3	1931.8	1933.6
10°	1907.2	1908.9	1907.2	1919.5	1921.3
12.5°	1882.5	1886.1	1887.8	1900.1	1901.9
15°	1852.6	1857.9	1861.4	1877.3	1880.8
17.5°	1819.2	1824.5	1833.3	1850.9	1854.4
20°	1778.7	1785.8	1796.3	1819.2	1824.5
22.5°	1734.8	1741.8	1759.4	1780.5	1789.3
25°	1683.7	1697.8	1715.4	1743.6	1748.8
27.5°	1632.7	1645.0	1667.9	1697.8	1704.9
30°	1572.9	1592.2	1620.4	1650.3	1657.3
32.5°	1514.8	1534.2	1567.6	1599.3	1608.1
35°	1455.0	1472.6	1507.8	1544.7	1555.3
37.5°	1386.4	1409.3	1448.0	1484.9	1495.5
40°	1314.3	1342.4	1386.4	1425.1	1437.4
42.5°	1245.6	1275.6	1319.5	1361.8	1375.8
45°	1173.5	1201.7	1254.4	1301.9	1312.5
47.5°	1099.6	1131.3	1187.6	1235.1	1252.7
50°	1025.7	1059.2	1119.0	1168.2	1178.8
52.5°	951.8	987.0	1050.4	1103.1	1108.4
55°	874.4	913.1	980.0	1031.0	1041.6
57.5°	804.0	837.5	909.6	962.4	974.7
60°	726.6	763.6	841.0	890.3	906.1
62.5°	652.7	691.4	772.4	821.6	835.7
65°	575.3	619.3	698.5	756.5	770.6
67.5°	508.5	550.7	635.1	691.4	705.5
70°	431.1	478.6	568.3	626.3	640.4
72.5°	364.2	413.5	503.2	559.5	580.6
75°	292.1	348.4	438.1	497.9	512.0
77.5°	221.7	286.8	378.3	424.0	424.0
80°	158.3	227.0	311.4	332.5	336.0
82.5°	103.8	170.7	230.5	228.7	228.7
85°	59.8	110.8	137.2	133.7	133.7
87.5°	22.9	45.7	49.3	49.3	47.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)