

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: P314372

Luminaire Tested: **24FCZ2-50HE-UNV-L83050-S-CA125-W2A-U-4000K**

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: P314372  
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: 24FCZ2-50HE-UNV-L83050-S-CA125-W2A-U-4000K  
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS, 0.125" ACRYLIC SHEET  
Light Source: (336) 4000K 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**

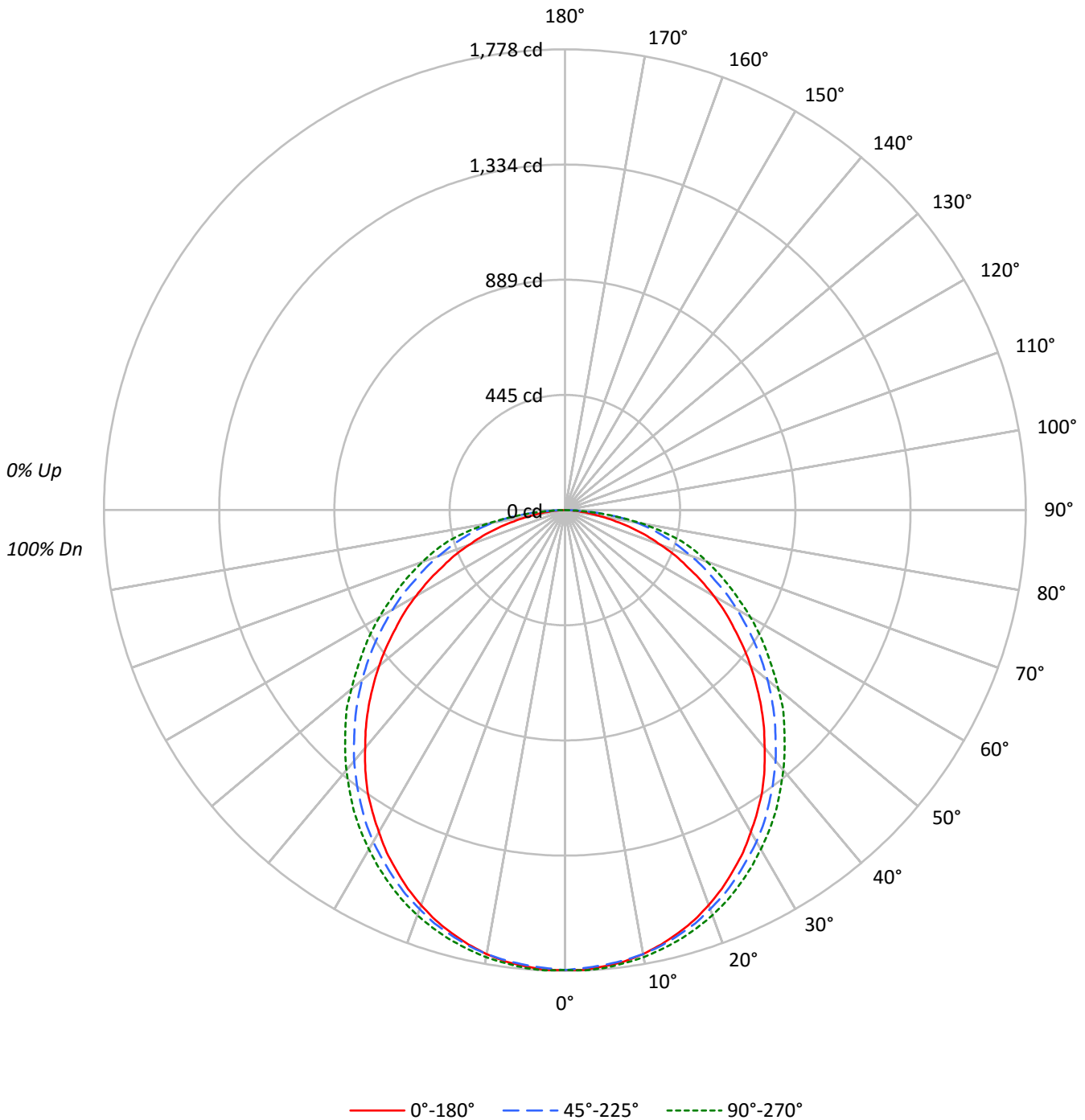
Lumens per Lamp: N/A  
Luminaire Lumens: 5052.0 lumens  
Efficiency: N/A  
Efficacy: 128.5 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 39.3  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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				10	0
RW	70	50	30	10	70	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
1	108	103	99	95	106	101	97	93	97	93	90	93	90	88	89	87	85	83
2	98	90	83	77	96	88	81	76	84	79	74	81	76	72	78	74	71	69
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42
6	70	56	47	40	68	55	47	40	53	46	40	52	45	40	50	44	39	37
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	2388	2388	2388
5°	2386	2380	2395
10°	2377	2377	2394
15°	2354	2365	2389
20°	2323	2346	2383
25°	2280	2323	2368
30°	2229	2296	2348
35°	2180	2259	2330
40°	2105	2221	2303
45°	2037	2177	2278
50°	1958	2136	2251
55°	1871	2097	2228
60°	1783	2064	2224
65°	1670	2028	2238
70°	1547	2039	2298
75°	1385	2077	2428
80°	1119	2201	2375
85°	843	1933	1883



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	168.0	3.3
10°-20°	480.1	9.5
20°-30°	721.7	14.3
30°-40°	859.7	17.0
40°-50°	879.8	17.4
50°-60°	792.1	15.7
60°-70°	622.0	12.3
70°-80°	403.7	8.0
80°-90°	124.9	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°	1369.8	27.1
0°-40°	2229.5	44.1
0°-60°	3901.4	77.2
0°-90°	5052.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5052.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1775	1775	1775	1775	1775	
5°	1767	1770	1762	1772	1773	168
15°	1690	1695	1698	1712	1715	476
25°	1536	1548	1565	1590	1595	707
35°	1327	1343	1375	1409	1419	828
45°	1070	1096	1144	1188	1197	825
55°	798	833	894	940	950	715
65°	525	565	637	690	703	522
75°	266	318	400	454	467	282
85°	55	101	125	122	122	66
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1774.8	1774.8	1774.8	1774.8	1774.8
2.5°	1776.4	1776.4	1768.4	1776.4	1778.0
5°	1766.8	1770.0	1762.0	1771.6	1773.2
7.5°	1757.1	1757.1	1752.3	1762.0	1763.6
10°	1739.5	1741.1	1739.5	1750.7	1752.3
12.5°	1717.0	1720.2	1721.8	1733.1	1734.7
15°	1689.8	1694.6	1697.8	1712.2	1715.4
17.5°	1659.3	1664.1	1672.1	1688.1	1691.4
20°	1622.4	1628.8	1638.4	1659.3	1664.1
22.5°	1582.2	1588.7	1604.7	1624.0	1632.0
25°	1535.7	1548.5	1564.6	1590.3	1595.1
27.5°	1489.2	1500.4	1521.3	1548.5	1555.0
30°	1434.6	1452.3	1477.9	1505.2	1511.6
32.5°	1381.6	1399.3	1429.8	1458.7	1466.7
35°	1327.1	1343.1	1375.2	1408.9	1418.6
37.5°	1264.5	1285.4	1320.7	1354.4	1364.0
40°	1198.7	1224.4	1264.5	1299.8	1311.0
42.5°	1136.1	1163.4	1203.5	1242.0	1254.9
45°	1070.3	1096.0	1144.2	1187.5	1197.1
47.5°	1002.9	1031.8	1083.2	1126.5	1142.5
50°	935.5	966.0	1020.6	1065.5	1075.2
52.5°	868.1	900.2	958.0	1006.1	1011.0
55°	797.5	832.8	893.8	940.4	950.0
57.5°	733.3	763.8	829.6	877.8	889.0
60°	662.7	696.4	767.0	812.0	826.4
62.5°	595.3	630.6	704.5	749.4	762.2
65°	524.7	564.9	637.1	690.0	702.9
67.5°	463.8	502.3	579.3	630.6	643.5
70°	393.2	436.5	518.3	571.3	584.1
72.5°	332.2	377.1	458.9	510.3	529.6
75°	266.4	317.7	399.6	454.1	467.0
77.5°	202.2	261.6	345.0	386.7	386.7
80°	144.4	207.0	284.0	303.3	306.5
82.5°	94.7	155.7	210.2	208.6	208.6
85°	54.6	101.1	125.2	122.0	122.0
87.5°	20.9	41.7	44.9	44.9	43.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)