

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: P310453

Luminaire Tested: **24FCZ2-75HE-UNV-L82765-RDP-CA08-W2A-U-6500K**

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: P310453  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-19)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: 24FCZ2-75HE-UNV-L82765-RDP-CA08-W2A-U-6500K  
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.08" ACRYLIC SHEET  
Light Source: (336) 6500K 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**

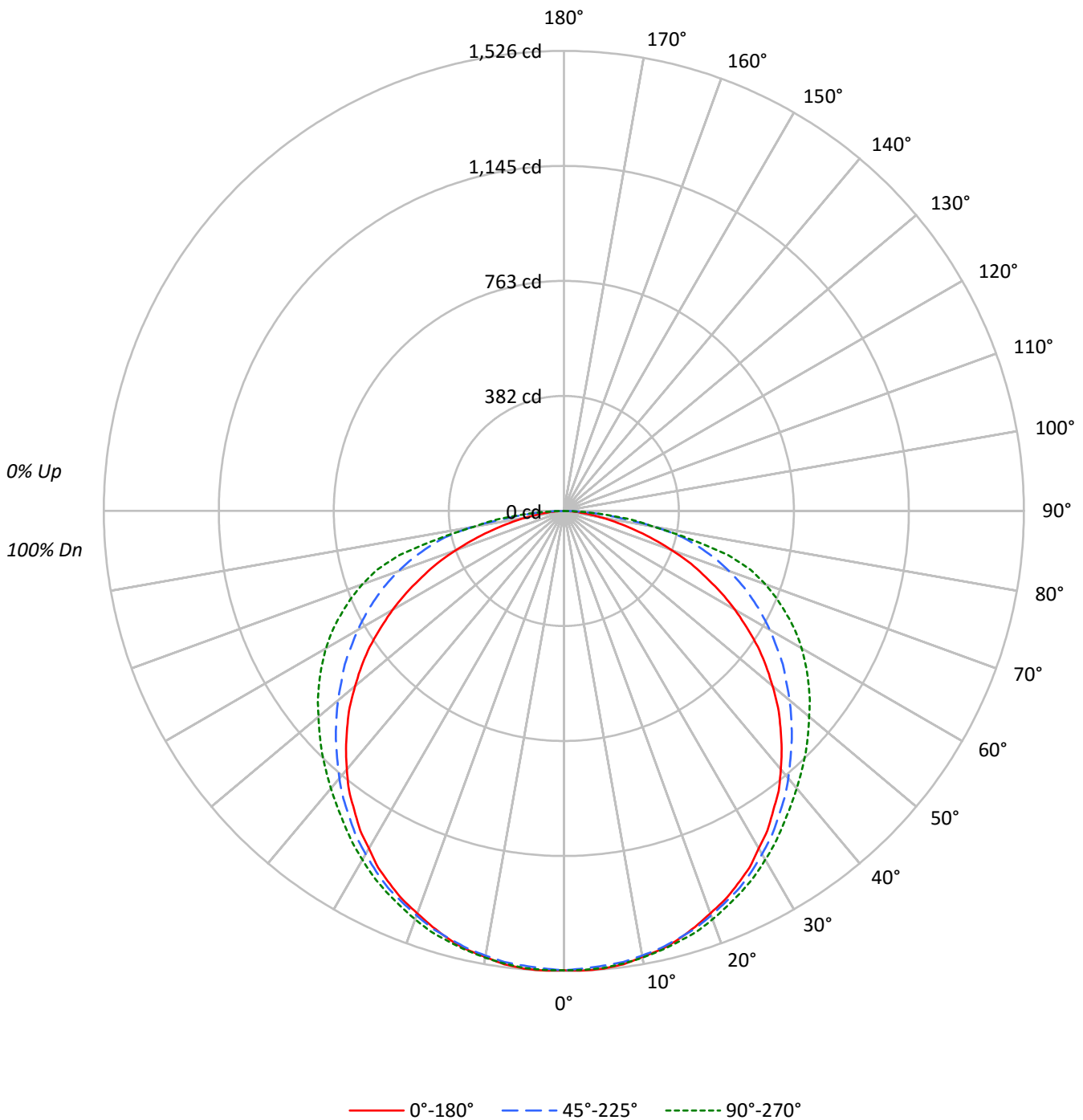
Lumens per Lamp: N/A  
Luminaire Lumens: 4845.0 lumens  
Efficiency: N/A  
Efficacy: 73.9 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 65.6  
Input Voltage (V): NR  
Input Current (Ain): NR  
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				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	98	94	105	100	96	92	96	93	89	92	89	87	88	86	84	82
2	97	89	81	75	95	87	80	74	83	77	72	80	75	71	77	73	69	67
3	88	77	68	62	86	76	67	61	72	66	60	70	64	59	67	62	58	56
4	81	68	59	52	78	67	58	51	64	57	51	62	55	50	59	54	49	47
5	74	60	51	44	72	59	51	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	45	38	51	44	38	50	43	37	48	42	37	35
7	63	49	40	34	61	48	40	34	47	39	33	45	38	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	41	34	29	40	34	29	27
9	55	41	33	27	53	40	32	27	39	32	27	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

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

	0°	45°	90°
0°	2050	2050	2050
5°	2058	2045	2055
10°	2052	2046	2055
15°	2049	2045	2059
20°	2034	2044	2065
25°	2026	2048	2069
30°	2009	2042	2076
35°	1989	2037	2084
40°	1967	2034	2111
45°	1934	2035	2158
50°	1891	2047	2223
55°	1843	2080	2323
60°	1766	2121	2451
65°	1653	2196	2601
70°	1503	2297	2798
75°	1274	2424	2923
80°	1006	2439	2365
85°	743	1856	2078



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	144.5	3.0
10°-20°	416.0	8.6
20°-30°	636.1	13.1
30°-40°	777.6	16.0
40°-50°	828.8	17.1
50°-60°	792.4	16.4
60°-70°	671.3	13.9
70°-80°	451.1	9.3
80°-90°	127.3	2.6
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°	1196.6	24.7
0°-40°	1974.2	40.7
0°-60°	3595.3	74.2
0°-90°	4845.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4845.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1524	1524	1524	1524	1524	
5°	1524	1521	1514	1521	1521	145
15°	1471	1471	1468	1480	1478	415
25°	1365	1370	1379	1391	1394	629
35°	1211	1221	1240	1264	1269	759
45°	1016	1033	1069	1115	1134	784
55°	786	815	887	956	990	700
65°	519	572	690	781	817	515
75°	245	334	466	546	562	262
85°	48	98	120	130	135	59
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1523.6	1523.6	1523.6	1523.6	1523.6
2.5°	1526.0	1526.0	1518.8	1523.6	1523.6
5°	1523.6	1521.2	1514.0	1521.2	1521.2
7.5°	1516.4	1514.0	1509.2	1516.4	1514.0
10°	1502.0	1502.0	1497.2	1504.4	1504.4
12.5°	1490.0	1487.6	1485.2	1494.8	1492.4
15°	1470.7	1470.7	1468.3	1480.4	1478.0
17.5°	1446.7	1449.1	1451.5	1461.1	1463.5
20°	1420.3	1425.1	1427.5	1441.9	1441.9
22.5°	1396.2	1398.6	1403.5	1417.9	1417.9
25°	1365.0	1369.8	1379.4	1391.4	1393.8
27.5°	1333.8	1336.2	1348.2	1365.0	1367.4
30°	1292.9	1300.1	1314.5	1333.8	1336.2
32.5°	1256.9	1264.1	1280.9	1300.1	1304.9
35°	1211.2	1220.8	1240.0	1264.1	1268.9
37.5°	1170.3	1177.6	1201.6	1228.0	1235.2
40°	1119.9	1134.3	1158.3	1189.6	1201.6
42.5°	1069.4	1083.8	1112.7	1153.5	1167.9
45°	1016.5	1033.4	1069.4	1115.1	1134.3
47.5°	963.7	982.9	1023.8	1076.6	1098.3
50°	903.6	927.6	978.1	1038.2	1062.2
52.5°	845.9	874.8	930.0	997.3	1028.6
55°	785.8	814.7	886.8	956.5	990.1
57.5°	718.5	757.0	836.3	915.6	951.7
60°	656.1	692.1	788.2	874.8	910.8
62.5°	588.8	636.8	740.2	831.5	867.5
65°	519.1	572.0	689.7	781.0	817.1
67.5°	456.6	514.3	639.2	730.6	766.6
70°	382.1	454.2	584.0	675.3	711.3
72.5°	312.4	391.7	526.3	615.2	648.9
75°	245.1	334.0	466.2	545.5	562.3
77.5°	182.6	276.4	403.7	437.4	425.4
80°	129.8	221.1	314.8	298.0	305.2
82.5°	84.1	168.2	194.7	221.1	228.3
85°	48.1	98.5	120.2	129.8	134.6
87.5°	21.6	36.0	48.1	48.1	45.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)