

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: P313767

Luminaire Tested: **24FCZ2-75HE-UNV-L83050-RDP-CA08-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: P313767  
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-L83050-RDP-CA08-W2A-U-4000K  
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.08" 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**

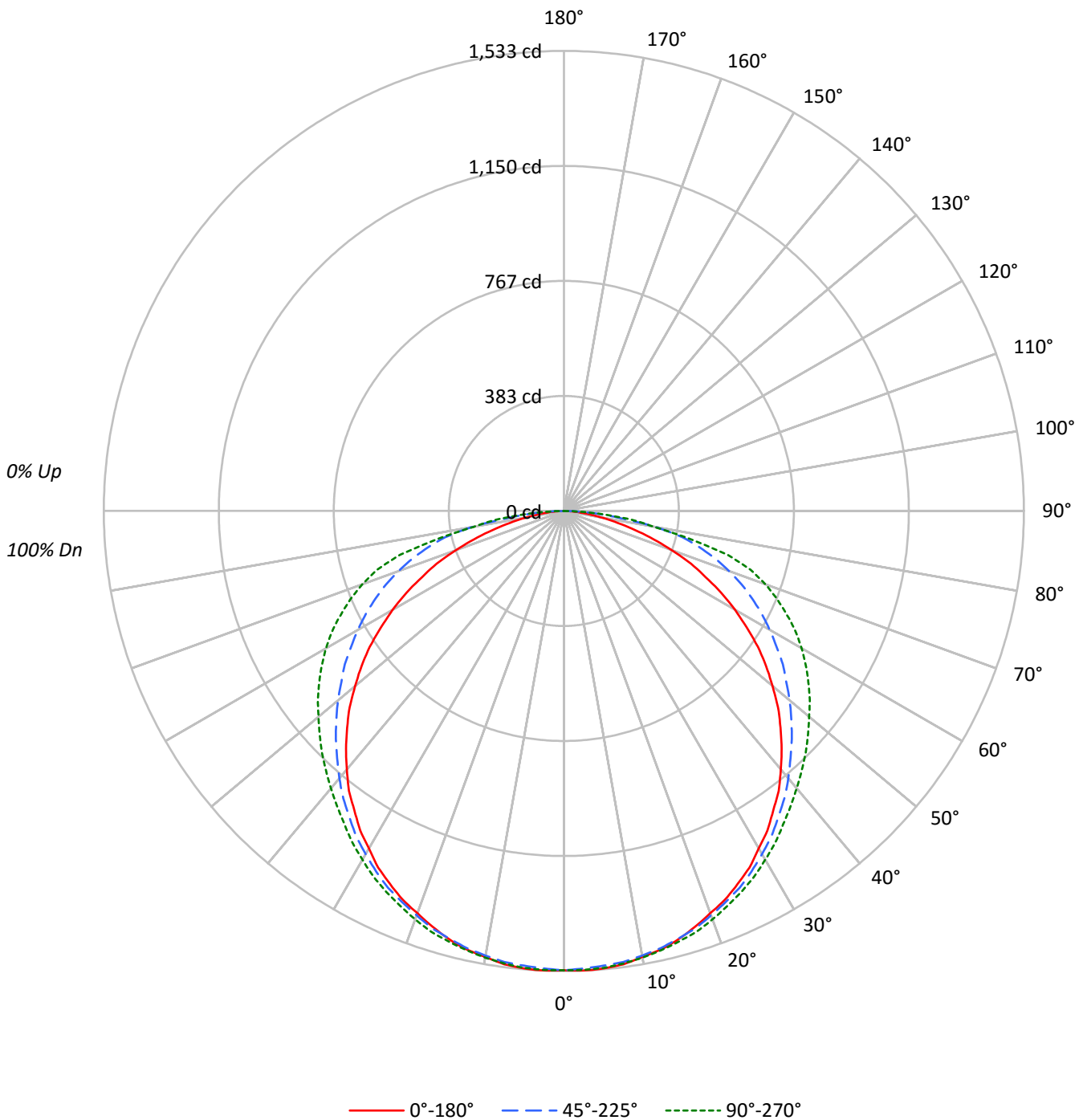
Lumens per Lamp: N/A  
Luminaire Lumens: 4867.0 lumens  
Efficiency: N/A  
Efficacy: 75.8 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 64.2  
Input Voltage (V): NR  
Input Current (Ain): NR  
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°	2059	2059	2059
5°	2067	2054	2064
10°	2061	2055	2065
15°	2058	2055	2068
20°	2043	2053	2074
25°	2036	2057	2079
30°	2018	2052	2085
35°	1998	2046	2094
40°	1976	2044	2120
45°	1943	2044	2168
50°	1900	2057	2233
55°	1852	2090	2333
60°	1773	2131	2462
65°	1660	2206	2613
70°	1510	2308	2811
75°	1280	2434	2937
80°	1010	2450	2376
85°	746	1863	2087



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	145.2	3.0
10°-20°	417.8	8.6
20°-30°	639.0	13.1
30°-40°	781.1	16.0
40°-50°	832.5	17.1
50°-60°	796.0	16.4
60°-70°	674.3	13.9
70°-80°	453.2	9.3
80°-90°	127.8	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°	1202.0	24.7
0°-40°	1983.1	40.7
0°-60°	3611.7	74.2
0°-90°	4867.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4867.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1530	1530	1530	1530	1530	
5°	1530	1528	1521	1528	1528	145
15°	1477	1477	1475	1487	1485	417
25°	1371	1376	1386	1398	1400	632
35°	1217	1226	1246	1270	1275	762
45°	1021	1038	1074	1120	1140	788
55°	789	818	891	961	995	703
65°	521	575	693	785	821	518
75°	246	336	468	548	565	264
85°	48	99	121	130	135	60
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1530.5	1530.5	1530.5	1530.5	1530.5
2.5°	1532.9	1532.9	1525.7	1530.5	1530.5
5°	1530.5	1528.1	1520.9	1528.1	1528.1
7.5°	1523.3	1520.9	1516.0	1523.3	1520.9
10°	1508.8	1508.8	1504.0	1511.2	1511.2
12.5°	1496.7	1494.3	1491.9	1501.6	1499.1
15°	1477.4	1477.4	1475.0	1487.1	1484.7
17.5°	1453.3	1455.7	1458.1	1467.8	1470.2
20°	1426.7	1431.6	1434.0	1448.5	1448.5
22.5°	1402.6	1405.0	1409.8	1424.3	1424.3
25°	1371.2	1376.0	1385.7	1397.8	1400.2
27.5°	1339.8	1342.2	1354.3	1371.2	1373.6
30°	1298.8	1306.0	1320.5	1339.8	1342.2
32.5°	1262.6	1269.8	1286.7	1306.0	1310.9
35°	1216.7	1226.4	1245.7	1269.8	1274.6
37.5°	1175.7	1182.9	1207.0	1233.6	1240.8
40°	1125.0	1139.5	1163.6	1195.0	1207.0
42.5°	1074.3	1088.8	1117.7	1158.8	1173.2
45°	1021.2	1038.1	1074.3	1120.1	1139.5
47.5°	968.0	987.4	1028.4	1081.5	1103.2
50°	907.7	931.8	982.5	1042.9	1067.0
52.5°	849.8	878.7	934.3	1001.8	1033.2
55°	789.4	818.4	890.8	960.8	994.6
57.5°	721.8	760.4	840.1	919.8	956.0
60°	659.0	695.3	791.8	878.7	914.9
62.5°	591.5	639.7	743.5	835.3	871.5
65°	521.4	574.6	692.8	784.6	820.8
67.5°	458.7	516.6	642.1	733.9	770.1
70°	383.8	456.3	586.6	678.4	714.6
72.5°	313.8	393.5	528.7	618.0	651.8
75°	246.2	335.6	468.3	548.0	564.9
77.5°	183.5	277.6	405.6	439.4	427.3
80°	130.4	222.1	316.2	299.3	306.6
82.5°	84.5	169.0	195.5	222.1	229.3
85°	48.3	99.0	120.7	130.4	135.2
87.5°	21.7	36.2	48.3	48.3	45.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)