

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: P310471

Luminaire Tested: **24FCZ2-75HE-UNV-L82765-RDP-CP125-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: P310471  
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-CP125-W2A-U-6500K  
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" POLYCARB 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**

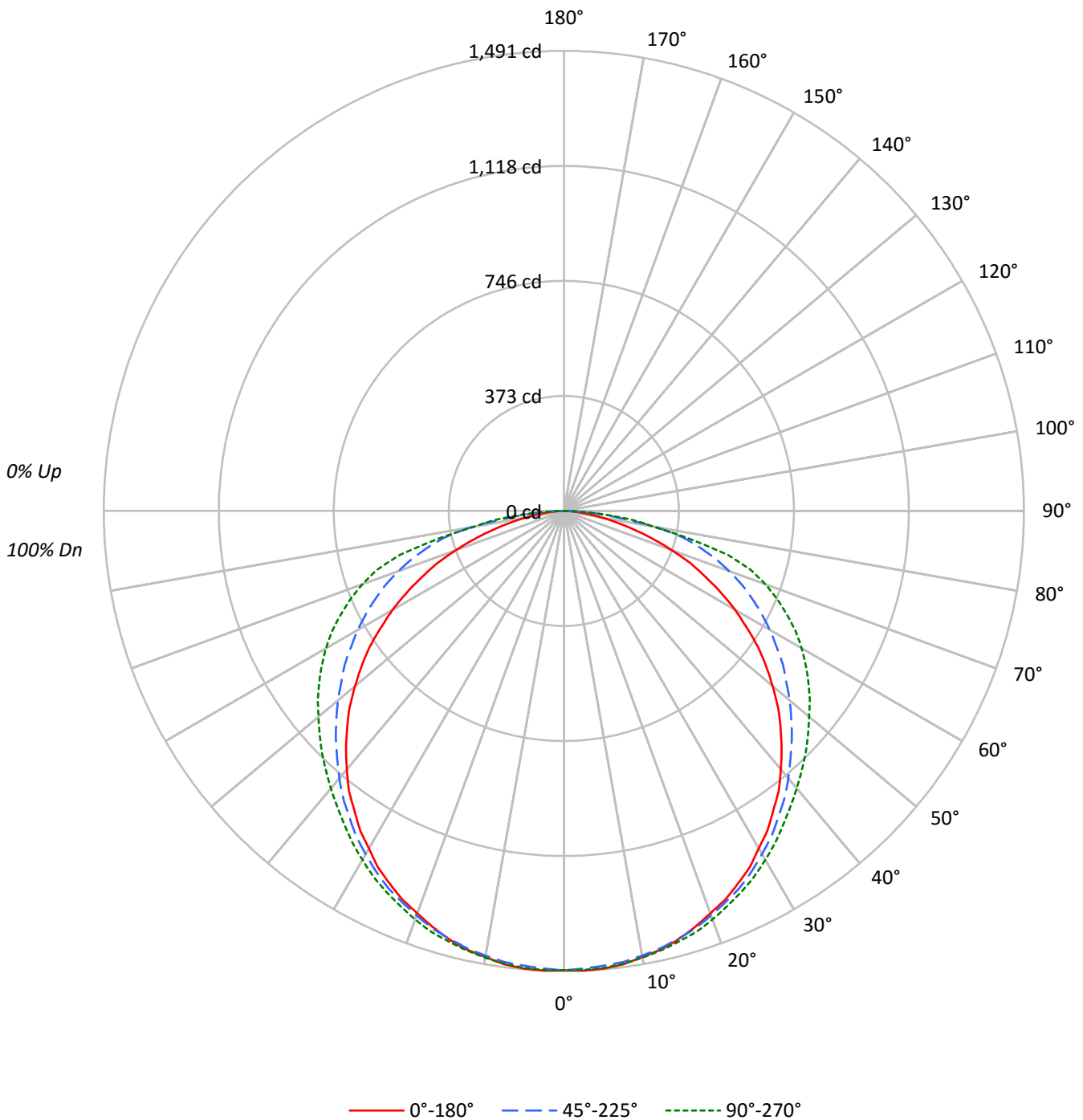
Lumens per Lamp: N/A  
Luminaire Lumens: 4734.0 lumens  
Efficiency: N/A  
Efficacy: 72.2 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 65.6  
Input Voltage (V): NR  
Input Current (A<sub>in</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	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°	2003	2003	2003
5°	2011	1998	2008
10°	2005	1999	2008
15°	2002	1998	2012
20°	1987	1997	2017
25°	1980	2001	2022
30°	1963	1995	2028
35°	1944	1990	2036
40°	1922	1988	2062
45°	1890	1988	2109
50°	1848	2000	2173
55°	1801	2033	2269
60°	1725	2073	2395
65°	1615	2145	2542
70°	1469	2245	2734
75°	1245	2368	2857
80°	982	2383	2311
85°	726	1812	2030



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	141.2	3.0
10°-20°	406.4	8.6
20°-30°	621.5	13.1
30°-40°	759.8	16.0
40°-50°	809.8	17.1
50°-60°	774.3	16.4
60°-70°	655.9	13.9
70°-80°	440.8	9.3
80°-90°	124.3	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°	1169.1	24.7
0°-40°	1928.9	40.7
0°-60°	3513.0	74.2
0°-90°	4734.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4734.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1489	1489	1489	1489	1489	
5°	1489	1486	1479	1486	1486	141
15°	1437	1437	1435	1446	1444	405
25°	1334	1338	1348	1360	1362	615
35°	1184	1193	1212	1235	1240	741
45°	993	1010	1045	1090	1108	766
55°	768	796	866	935	967	684
65°	507	559	674	763	798	504
75°	240	326	456	533	550	256
85°	47	96	117	127	132	58
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1488.7	1488.7	1488.7	1488.7	1488.7
2.5°	1491.1	1491.1	1484.0	1488.7	1488.7
5°	1488.7	1486.4	1479.3	1486.4	1486.4
7.5°	1481.7	1479.3	1474.6	1481.7	1479.3
10°	1467.6	1467.6	1462.9	1469.9	1469.9
12.5°	1455.8	1453.5	1451.1	1460.5	1458.2
15°	1437.0	1437.0	1434.7	1446.4	1444.1
17.5°	1413.6	1415.9	1418.3	1427.7	1430.0
20°	1387.7	1392.4	1394.8	1408.9	1408.9
22.5°	1364.3	1366.6	1371.3	1385.4	1385.4
25°	1333.7	1338.4	1347.8	1359.6	1361.9
27.5°	1303.2	1305.6	1317.3	1333.7	1336.1
30°	1263.3	1270.3	1284.4	1303.2	1305.6
32.5°	1228.1	1235.1	1251.5	1270.3	1275.0
35°	1183.5	1192.8	1211.6	1235.1	1239.8
37.5°	1143.5	1150.6	1174.1	1199.9	1206.9
40°	1094.2	1108.3	1131.8	1162.3	1174.1
42.5°	1044.9	1059.0	1087.2	1127.1	1141.2
45°	993.3	1009.7	1044.9	1089.5	1108.3
47.5°	941.6	960.4	1000.3	1052.0	1073.1
50°	882.9	906.4	955.7	1014.4	1037.9
52.5°	826.5	854.7	908.7	974.5	1005.0
55°	767.8	796.0	866.5	934.6	967.4
57.5°	702.1	739.7	817.1	894.6	929.9
60°	641.0	676.3	770.2	854.7	889.9
62.5°	575.3	622.3	723.2	812.4	847.7
65°	507.2	558.9	673.9	763.1	798.4
67.5°	446.1	502.5	624.6	713.8	749.1
70°	373.4	443.8	570.6	659.8	695.0
72.5°	305.3	382.7	514.2	601.1	634.0
75°	239.5	326.4	455.5	533.0	549.5
77.5°	178.5	270.0	394.5	427.4	415.6
80°	126.8	216.0	307.6	291.2	298.2
82.5°	82.2	164.4	190.2	216.0	223.1
85°	47.0	96.3	117.4	126.8	131.5
87.5°	21.1	35.2	47.0	47.0	44.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)