

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: P310365

Luminaire Tested: **24FCZ2-65HE-UNV-L82765-RDP-CA125-W2A-U-3000K**

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: P310365  
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: 24FCZ2-65HE-UNV-L82765-RDP-CA125-W2A-U-3000K  
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" ACRYLIC SHEET  
Light Source: (336) 3000K 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**

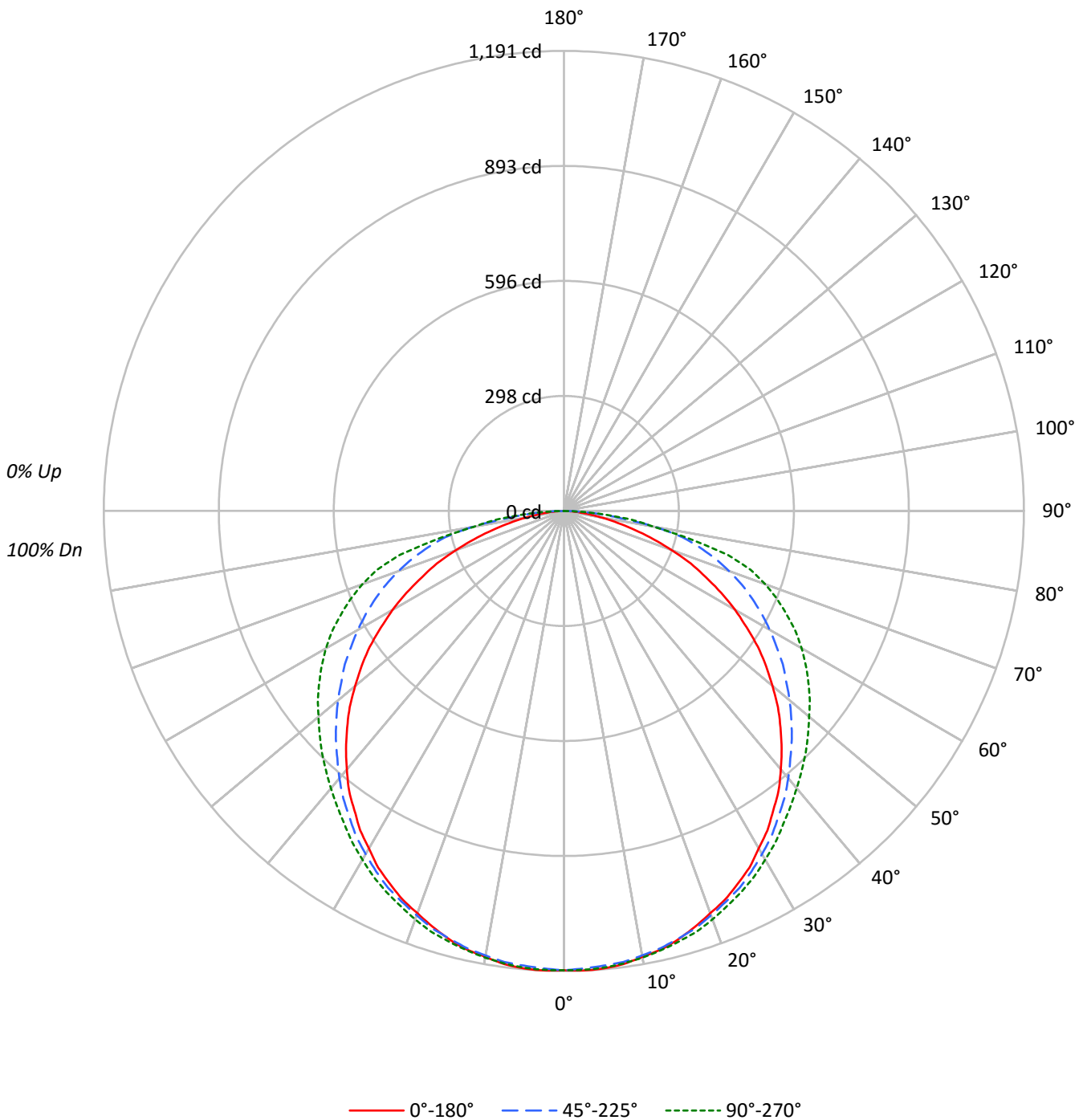
Lumens per Lamp: N/A  
Luminaire Lumens: 3781.0 lumens  
Efficiency: N/A  
Efficacy: 72.4 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 52.2  
Input Voltage (V): NR  
Input Current (A<sub>in</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°	1600	1600	1600
5°	1606	1596	1603
10°	1601	1596	1604
15°	1599	1596	1607
20°	1587	1595	1611
25°	1581	1598	1615
30°	1568	1594	1620
35°	1553	1589	1626
40°	1535	1588	1647
45°	1509	1588	1684
50°	1476	1598	1735
55°	1439	1623	1813
60°	1378	1655	1913
65°	1290	1713	2030
70°	1173	1793	2184
75°	994	1891	2281
80°	785	1904	1846
85°	579	1448	1621



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	112.8	3.0
10°-20°	324.6	8.6
20°-30°	496.4	13.1
30°-40°	606.8	16.0
40°-50°	646.8	17.1
50°-60°	618.4	16.4
60°-70°	523.8	13.9
70°-80°	352.1	9.3
80°-90°	99.3	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°	933.8	24.7
0°-40°	1540.6	40.7
0°-60°	2805.8	74.2
0°-90°	3781.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3781.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1189	1189	1189	1189	1189	
5°	1189	1187	1182	1187	1187	113
15°	1148	1148	1146	1155	1153	324
25°	1065	1069	1076	1086	1088	491
35°	945	953	968	986	990	592
45°	793	806	835	870	885	612
55°	613	636	692	746	773	546
65°	405	446	538	610	638	402
75°	191	261	364	426	439	205
85°	38	77	94	101	105	46
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1189.0	1189.0	1189.0	1189.0	1189.0
2.5°	1190.9	1190.9	1185.3	1189.0	1189.0
5°	1189.0	1187.1	1181.5	1187.1	1187.1
7.5°	1183.4	1181.5	1177.8	1183.4	1181.5
10°	1172.1	1172.1	1168.4	1174.0	1174.0
12.5°	1162.8	1160.9	1159.0	1166.5	1164.6
15°	1147.8	1147.8	1145.9	1155.3	1153.4
17.5°	1129.0	1130.9	1132.8	1140.3	1142.1
20°	1108.4	1112.1	1114.0	1125.3	1125.3
22.5°	1089.6	1091.5	1095.2	1106.5	1106.5
25°	1065.2	1069.0	1076.5	1085.9	1087.7
27.5°	1040.9	1042.7	1052.1	1065.2	1067.1
30°	1009.0	1014.6	1025.9	1040.9	1042.7
32.5°	980.8	986.5	999.6	1014.6	1018.4
35°	945.2	952.7	967.7	986.5	990.2
37.5°	913.3	919.0	937.7	958.3	964.0
40°	873.9	885.2	904.0	928.3	937.7
42.5°	834.6	845.8	868.3	900.2	911.5
45°	793.3	806.4	834.6	870.2	885.2
47.5°	752.0	767.0	798.9	840.2	857.1
50°	705.2	723.9	763.3	810.2	828.9
52.5°	660.1	682.7	725.8	778.3	802.7
55°	613.3	635.8	692.0	746.4	772.7
57.5°	560.8	590.8	652.6	714.5	742.7
60°	512.0	540.1	615.1	682.7	710.8
62.5°	459.5	497.0	577.6	648.9	677.0
65°	405.1	446.4	538.2	609.5	637.6
67.5°	356.3	401.3	498.9	570.1	598.3
70°	298.2	354.5	455.7	527.0	555.1
72.5°	243.8	305.7	410.7	480.1	506.4
75°	191.3	260.7	363.8	425.7	438.8
77.5°	142.5	215.7	315.1	341.3	331.9
80°	101.3	172.5	245.7	232.6	238.2
82.5°	65.6	131.3	151.9	172.5	178.2
85°	37.5	76.9	93.8	101.3	105.0
87.5°	16.9	28.1	37.5	37.5	35.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)