

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: P314476

Luminaire Tested: **24FCZ2-65HE-UNV-L83050-S-CP125-W2A-U-3500K**

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: P314476  
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: 24FCZ2-65HE-UNV-L83050-S-CP125-W2A-U-3500K  
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS, 0.125" POLYCARB SHEET  
Light Source: (336) 3500K 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**

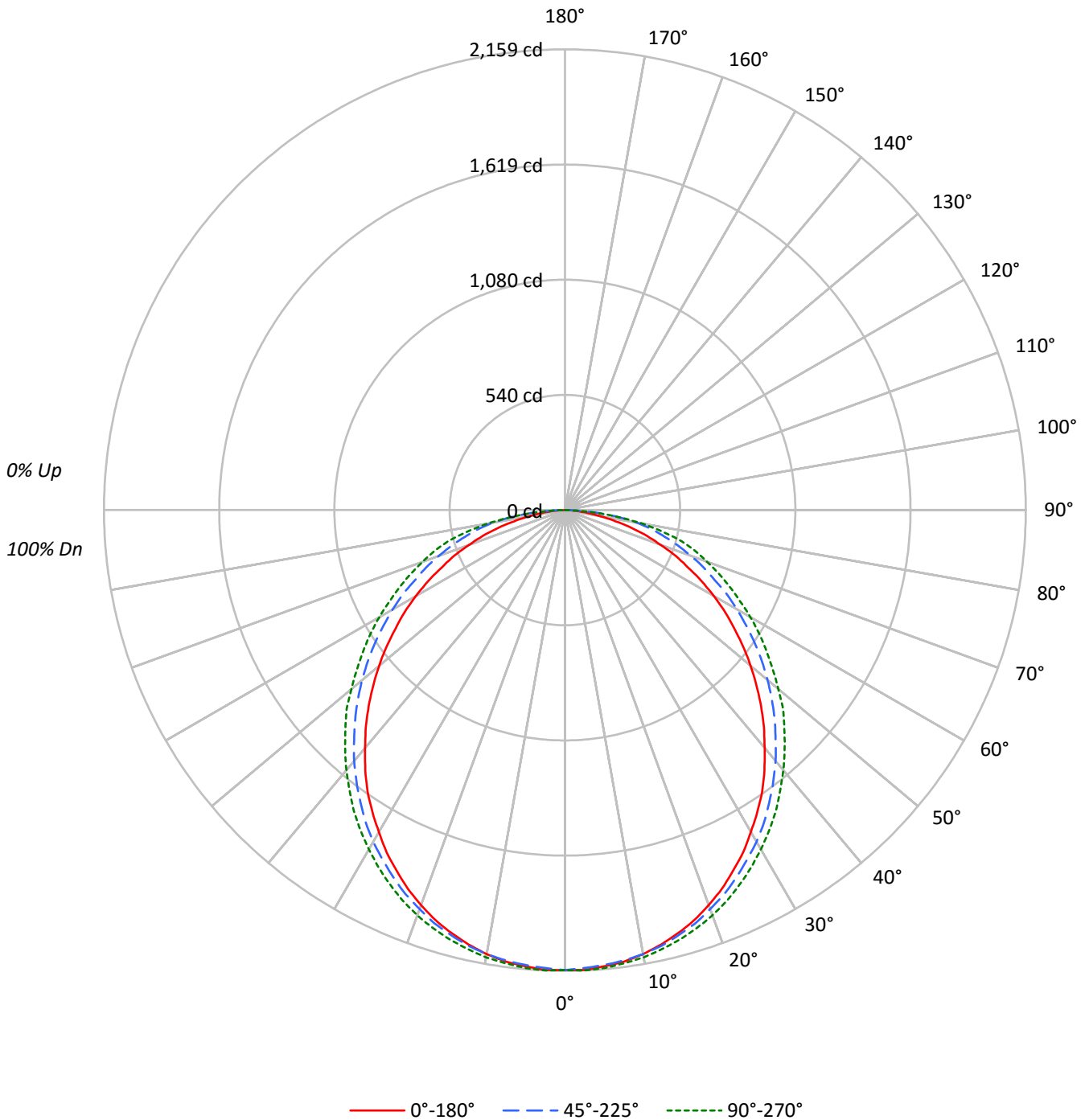
Lumens per Lamp: N/A  
Luminaire Lumens: 6135.0 lumens  
Efficiency: N/A  
Efficacy: 116.6 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 52.6  
Input Voltage (V): NR  
Input Current (A<sub>in</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	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°	2900	2900	2900
5°	2898	2890	2908
10°	2886	2886	2907
15°	2858	2872	2902
20°	2821	2849	2893
25°	2769	2821	2876
30°	2707	2788	2852
35°	2647	2743	2830
40°	2557	2697	2796
45°	2473	2644	2766
50°	2378	2594	2733
55°	2272	2546	2706
60°	2166	2507	2701
65°	2029	2463	2717
70°	1878	2476	2790
75°	1682	2522	2948
80°	1359	2672	2884
85°	1024	2347	2286



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	204.0	3.3
10°-20°	583.0	9.5
20°-30°	876.4	14.3
30°-40°	1043.9	17.0
40°-50°	1068.4	17.4
50°-60°	961.9	15.7
60°-70°	755.4	12.3
70°-80°	490.2	8.0
80°-90°	151.6	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°	1663.5	27.1
0°-40°	2707.4	44.1
0°-60°	4737.7	77.2
0°-90°	6135.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6135.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2155	2155	2155	2155	2155	
5°	2146	2149	2140	2151	2153	204
15°	2052	2058	2062	2079	2083	579
25°	1865	1880	1900	1931	1937	859
35°	1612	1631	1670	1711	1723	1005
45°	1300	1331	1389	1442	1454	1002
55°	968	1011	1085	1142	1154	868
65°	637	686	774	838	854	634
75°	324	386	485	552	567	342
85°	66	123	152	148	148	80
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2155.3	2155.3	2155.3	2155.3	2155.3
2.5°	2157.2	2157.2	2147.5	2157.2	2159.2
5°	2145.5	2149.4	2139.7	2151.4	2153.3
7.5°	2133.8	2133.8	2128.0	2139.7	2141.6
10°	2112.4	2114.3	2112.4	2126.0	2128.0
12.5°	2085.1	2089.0	2091.0	2104.6	2106.5
15°	2052.0	2057.8	2061.7	2079.3	2083.2
17.5°	2015.0	2020.8	2030.5	2050.0	2053.9
20°	1970.1	1977.9	1989.6	2015.0	2020.8
22.5°	1921.4	1929.2	1948.7	1972.1	1981.8
25°	1864.9	1880.5	1900.0	1931.2	1937.0
27.5°	1808.4	1822.0	1847.4	1880.5	1888.3
30°	1742.1	1763.6	1794.8	1827.9	1835.7
32.5°	1677.8	1699.3	1736.3	1771.4	1781.1
35°	1611.6	1631.1	1670.0	1711.0	1722.7
37.5°	1535.6	1560.9	1603.8	1644.7	1656.4
40°	1455.7	1486.9	1535.6	1578.4	1592.1
42.5°	1379.7	1412.8	1461.5	1508.3	1523.9
45°	1299.8	1331.0	1389.4	1442.0	1453.7
47.5°	1217.9	1253.0	1315.4	1368.0	1387.5
50°	1136.1	1173.1	1239.4	1293.9	1305.6
52.5°	1054.2	1093.2	1163.4	1221.8	1227.7
55°	968.5	1011.4	1085.4	1141.9	1153.6
57.5°	890.6	927.6	1007.5	1065.9	1079.6
60°	804.8	845.7	931.5	986.0	1003.6
62.5°	723.0	765.8	855.5	910.0	925.6
65°	637.2	685.9	773.6	837.9	853.5
67.5°	563.2	609.9	703.5	765.8	781.4
70°	477.4	530.0	629.4	693.7	709.3
72.5°	403.4	457.9	557.3	619.7	643.1
75°	323.5	385.8	485.2	551.5	567.1
77.5°	245.5	317.6	419.0	469.6	469.6
80°	175.4	251.4	344.9	368.3	372.2
82.5°	115.0	189.0	255.3	253.3	253.3
85°	66.3	122.8	152.0	148.1	148.1
87.5°	25.3	50.7	54.6	54.6	52.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)