

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: P310378

Luminaire Tested: **24FCZ2-65HE-UNV-L82765-RDP-CP125-W2A-U-5000K**

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: P310378  
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-CP125-W2A-U-5000K  
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" POLYCARB SHEET  
Light Source: (336) 5000K 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: 4043.0 lumens  
Efficiency: N/A  
Efficacy: 75.1 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

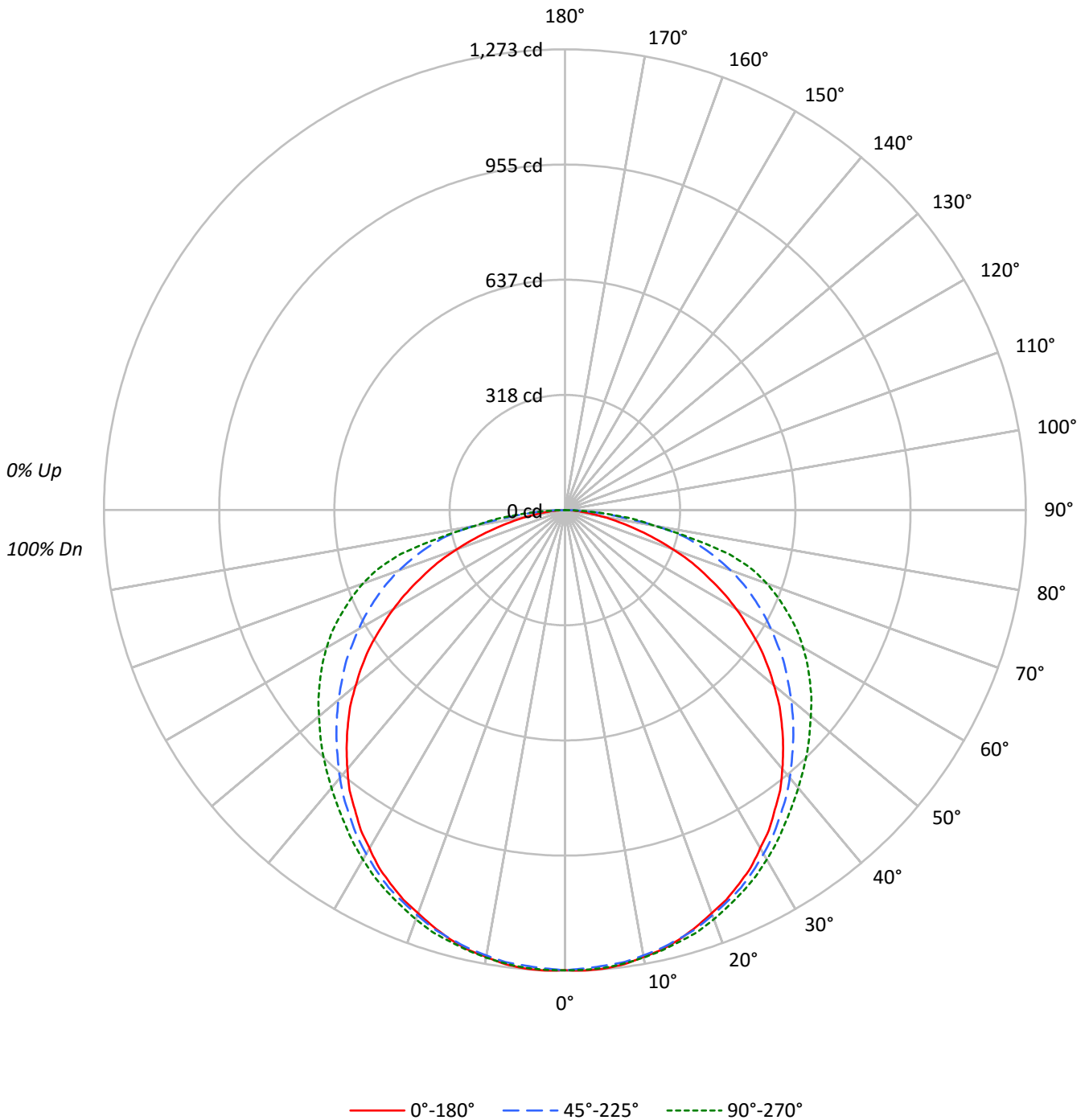
Input Watts (W): 53.8  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	1711	1711	1711
5°	1717	1706	1714
10°	1712	1707	1715
15°	1710	1707	1718
20°	1697	1706	1723
25°	1691	1709	1727
30°	1676	1704	1732
35°	1660	1700	1739
40°	1641	1698	1761
45°	1614	1698	1801
50°	1578	1708	1855
55°	1538	1736	1938
60°	1473	1770	2045
65°	1379	1832	2171
70°	1255	1917	2335
75°	1063	2022	2440
80°	839	2035	1974
85°	619	1548	1734



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	120.6	3.0
10°-20°	347.1	8.6
20°-30°	530.8	13.1
30°-40°	648.9	16.0
40°-50°	691.6	17.1
50°-60°	661.2	16.4
60°-70°	560.1	13.9
70°-80°	376.5	9.3
80°-90°	106.2	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°	998.5	24.7
0°-40°	1647.4	40.7
0°-60°	3000.2	74.2
0°-90°	4043.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4043.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1271	1271	1271	1271	1271	
5°	1271	1269	1263	1269	1269	121
15°	1227	1227	1225	1235	1233	346
25°	1139	1143	1151	1161	1163	525
35°	1011	1019	1035	1055	1059	633
45°	848	862	892	930	946	654
55°	656	680	740	798	826	584
65°	433	477	576	652	682	430
75°	204	279	389	455	469	219
85°	40	82	100	108	112	50
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1271.4	1271.4	1271.4	1271.4	1271.4
2.5°	1273.4	1273.4	1267.4	1271.4	1271.4
5°	1271.4	1269.4	1263.4	1269.4	1269.4
7.5°	1265.4	1263.4	1259.4	1265.4	1263.4
10°	1253.4	1253.4	1249.3	1255.4	1255.4
12.5°	1243.3	1241.3	1239.3	1247.3	1245.3
15°	1227.3	1227.3	1225.3	1235.3	1233.3
17.5°	1207.2	1209.2	1211.2	1219.3	1221.3
20°	1185.2	1189.2	1191.2	1203.2	1203.2
22.5°	1165.1	1167.1	1171.1	1183.2	1183.2
25°	1139.1	1143.1	1151.1	1161.1	1163.1
27.5°	1113.0	1115.0	1125.0	1139.1	1141.1
30°	1078.9	1084.9	1096.9	1113.0	1115.0
32.5°	1048.8	1054.8	1068.9	1084.9	1088.9
35°	1010.7	1018.7	1034.8	1054.8	1058.8
37.5°	976.6	982.6	1002.7	1024.7	1030.8
40°	934.5	946.5	966.6	992.7	1002.7
42.5°	892.4	904.4	928.5	962.6	974.6
45°	848.3	862.3	892.4	930.5	946.5
47.5°	804.2	820.2	854.3	898.4	916.5
50°	754.0	774.1	816.2	866.3	886.4
52.5°	705.9	730.0	776.1	832.2	858.3
55°	655.8	679.8	740.0	798.1	826.2
57.5°	599.6	631.7	697.9	764.0	794.1
60°	547.5	577.5	657.8	730.0	760.0
62.5°	491.3	531.4	617.7	693.9	723.9
65°	433.2	477.3	575.5	651.7	681.8
67.5°	381.0	429.2	533.4	609.6	639.7
70°	318.9	379.0	487.3	563.5	593.6
72.5°	260.7	326.9	439.2	513.4	541.5
75°	204.5	278.7	389.0	455.2	469.3
77.5°	152.4	230.6	336.9	365.0	355.0
80°	108.3	184.5	262.7	248.7	254.7
82.5°	70.2	140.4	162.4	184.5	190.5
85°	40.1	82.2	100.3	108.3	112.3
87.5°	18.0	30.1	40.1	40.1	38.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)