

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: P314485

Luminaire Tested: **24FCZ2-65HE-UNV-L83050-S-CP250-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: P314485  
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-CP250-W2A-U-3000K  
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS, 0.250" POLYCARB 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**

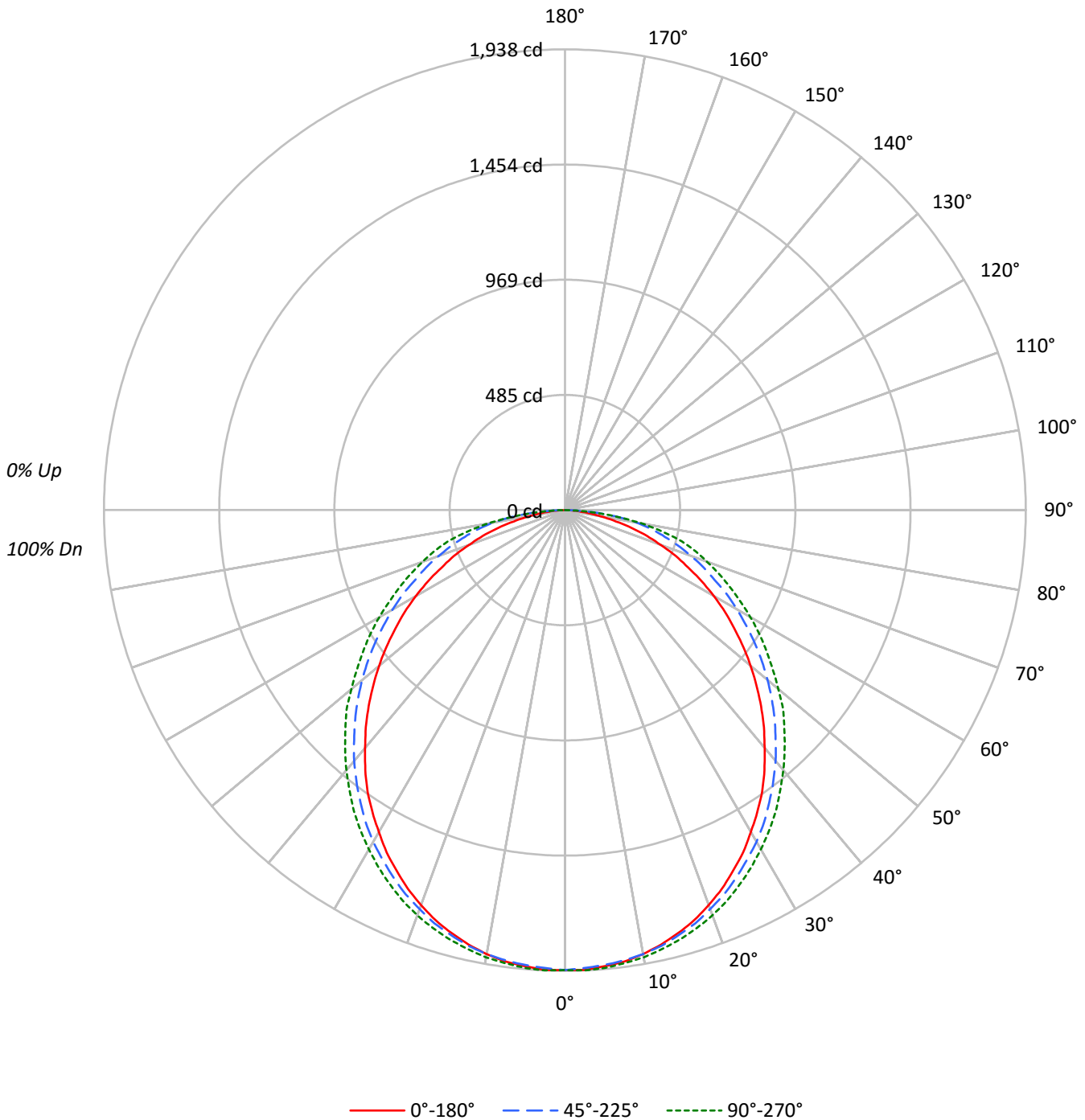
Lumens per Lamp: N/A  
Luminaire Lumens: 5507.0 lumens  
Efficiency: N/A  
Efficacy: 104.9 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 52.5  
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°	2603	2603	2603
5°	2601	2594	2611
10°	2591	2591	2610
15°	2566	2578	2605
20°	2532	2557	2597
25°	2485	2532	2581
30°	2430	2503	2560
35°	2376	2462	2540
40°	2295	2421	2510
45°	2220	2373	2483
50°	2135	2329	2453
55°	2039	2286	2429
60°	1944	2250	2424
65°	1821	2211	2439
70°	1686	2223	2505
75°	1510	2264	2646
80°	1220	2399	2589
85°	919	2106	2052



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	183.2	3.3
10°-20°	523.3	9.5
20°-30°	786.7	14.3
30°-40°	937.1	17.0
40°-50°	959.1	17.4
50°-60°	863.4	15.7
60°-70°	678.1	12.3
70°-80°	440.1	8.0
80°-90°	136.1	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°	1493.2	27.1
0°-40°	2430.3	44.1
0°-60°	4252.7	77.2
0°-90°	5507.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5507.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1935	1935	1935	1935	1935	
5°	1926	1929	1921	1931	1933	183
15°	1842	1847	1851	1866	1870	519
25°	1674	1688	1706	1734	1739	771
35°	1447	1464	1499	1536	1546	902
45°	1167	1195	1247	1294	1305	900
55°	869	908	974	1025	1036	779
65°	572	616	694	752	766	569
75°	290	346	436	495	509	307
85°	60	110	136	133	133	72
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1934.6	1934.6	1934.6	1934.6	1934.6
2.5°	1936.4	1936.4	1927.6	1936.4	1938.1
5°	1925.9	1929.4	1920.7	1931.1	1932.9
7.5°	1915.4	1915.4	1910.2	1920.7	1922.4
10°	1896.2	1897.9	1896.2	1908.4	1910.2
12.5°	1871.7	1875.2	1876.9	1889.2	1890.9
15°	1841.9	1847.2	1850.7	1866.4	1869.9
17.5°	1808.7	1813.9	1822.7	1840.2	1843.7
20°	1768.5	1775.5	1786.0	1808.7	1813.9
22.5°	1724.7	1731.7	1749.2	1770.2	1779.0
25°	1674.0	1688.0	1705.5	1733.5	1738.7
27.5°	1623.3	1635.5	1658.3	1688.0	1695.0
30°	1563.8	1583.1	1611.0	1640.8	1647.8
32.5°	1506.1	1525.3	1558.6	1590.0	1598.8
35°	1446.6	1464.1	1499.1	1535.8	1546.3
37.5°	1378.4	1401.1	1439.6	1476.3	1486.8
40°	1306.7	1334.7	1378.4	1416.9	1429.1
42.5°	1238.5	1268.2	1311.9	1353.9	1367.9
45°	1166.7	1194.7	1247.2	1294.4	1304.9
47.5°	1093.3	1124.8	1180.7	1228.0	1245.4
50°	1019.8	1053.0	1112.5	1161.5	1172.0
52.5°	946.3	981.3	1044.3	1096.8	1102.0
55°	869.4	907.8	974.3	1025.0	1035.5
57.5°	799.4	832.6	904.4	956.8	969.1
60°	722.4	759.2	836.1	885.1	900.9
62.5°	649.0	687.4	767.9	816.9	830.9
65°	572.0	615.7	694.4	752.2	766.2
67.5°	505.5	547.5	631.5	687.4	701.4
70°	428.6	475.8	565.0	622.7	636.7
72.5°	362.1	411.1	500.3	556.3	577.2
75°	290.4	346.3	435.6	495.0	509.0
77.5°	220.4	285.1	376.1	421.6	421.6
80°	157.4	225.7	309.6	330.6	334.1
82.5°	103.2	169.7	229.1	227.4	227.4
85°	59.5	110.2	136.4	132.9	132.9
87.5°	22.7	45.5	49.0	49.0	47.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)