

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: P313786

Luminaire Tested: **24FCZ2-75HE-UNV-L83050-RDP-CP250-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: P313786  
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-L83050-RDP-CP250-W2A-U-3500K  
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.250" 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: 4302.0 lumens  
Efficiency: N/A  
Efficacy: 68.5 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

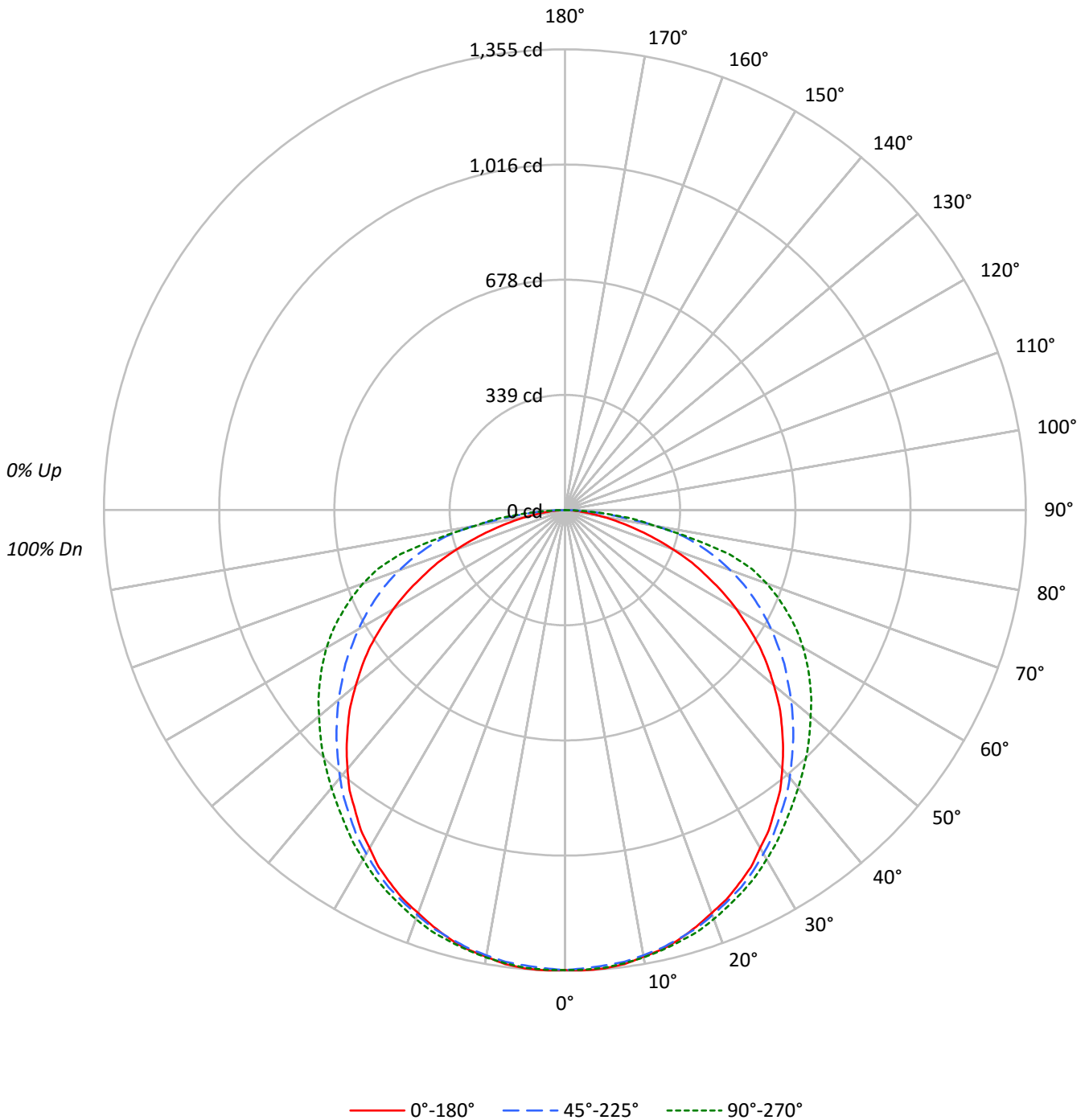
Input Watts (W): 62.8  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	1820	1820	1820
5°	1827	1816	1824
10°	1822	1816	1825
15°	1819	1816	1828
20°	1806	1815	1833
25°	1799	1818	1837
30°	1784	1813	1843
35°	1767	1809	1851
40°	1747	1806	1874
45°	1717	1807	1917
50°	1679	1818	1974
55°	1637	1847	2062
60°	1567	1883	2176
65°	1467	1950	2310
70°	1335	2040	2485
75°	1132	2152	2596
80°	893	2166	2100
85°	659	1647	1845



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	128.3	3.0
10°-20°	369.3	8.6
20°-30°	564.8	13.1
30°-40°	690.5	16.0
40°-50°	735.9	17.1
50°-60°	703.6	16.4
60°-70°	596.0	13.9
70°-80°	400.6	9.3
80°-90°	113.0	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°	1062.5	24.7
0°-40°	1752.9	40.7
0°-60°	3192.4	74.2
0°-90°	4302.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4302.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1353	1353	1353	1353	1353	
5°	1353	1351	1344	1351	1351	129
15°	1306	1306	1304	1314	1312	368
25°	1212	1216	1225	1236	1238	559
35°	1076	1084	1101	1122	1127	674
45°	903	918	950	990	1007	696
55°	698	723	787	849	879	621
65°	461	508	612	694	726	458
75°	218	297	414	484	499	233
85°	43	88	107	115	120	53
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1352.9	1352.9	1352.9	1352.9	1352.9
2.5°	1355.0	1355.0	1348.6	1352.9	1352.9
5°	1352.9	1350.7	1344.3	1350.7	1350.7
7.5°	1346.5	1344.3	1340.1	1346.5	1344.3
10°	1333.7	1333.7	1329.4	1335.8	1335.8
12.5°	1323.0	1320.8	1318.7	1327.3	1325.1
15°	1305.9	1305.9	1303.8	1314.4	1312.3
17.5°	1284.6	1286.7	1288.8	1297.4	1299.5
20°	1261.1	1265.4	1267.5	1280.3	1280.3
22.5°	1239.8	1241.9	1246.2	1259.0	1259.0
25°	1212.0	1216.3	1224.8	1235.5	1237.6
27.5°	1184.3	1186.4	1197.1	1212.0	1214.2
30°	1148.0	1154.4	1167.2	1184.3	1186.4
32.5°	1116.0	1122.4	1137.3	1154.4	1158.7
35°	1075.5	1084.0	1101.1	1122.4	1126.7
37.5°	1039.2	1045.6	1066.9	1090.4	1096.8
40°	994.4	1007.2	1028.5	1056.3	1066.9
42.5°	949.6	962.4	988.0	1024.2	1037.0
45°	902.6	917.6	949.6	990.1	1007.2
47.5°	855.7	872.7	909.0	956.0	975.2
50°	802.3	823.7	868.5	921.8	943.2
52.5°	751.1	776.7	825.8	885.5	913.3
55°	697.8	723.4	787.4	849.3	879.1
57.5°	638.0	672.2	742.6	813.0	845.0
60°	582.5	614.5	699.9	776.7	808.7
62.5°	522.8	565.5	657.2	738.3	770.3
65°	460.9	507.9	612.4	693.5	725.5
67.5°	405.4	456.6	567.6	648.7	680.7
70°	339.3	403.3	518.5	599.6	631.6
72.5°	277.4	347.8	467.3	546.3	576.1
75°	217.7	296.6	414.0	484.4	499.3
77.5°	162.2	245.4	358.5	388.4	377.7
80°	115.2	196.3	279.5	264.6	271.0
82.5°	74.7	149.4	172.8	196.3	202.7
85°	42.7	87.5	106.7	115.2	119.5
87.5°	19.2	32.0	42.7	42.7	40.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)