

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: P314152

Luminaire Tested: **24FCZ2-75HE-UNV-L83050-CP125-W2A-U-4000K**

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: P314152  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-15)  
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-CP125-W2A-U-4000K  
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.125" POLYCARB SHEET  
Light Source: (336) 4000K 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**

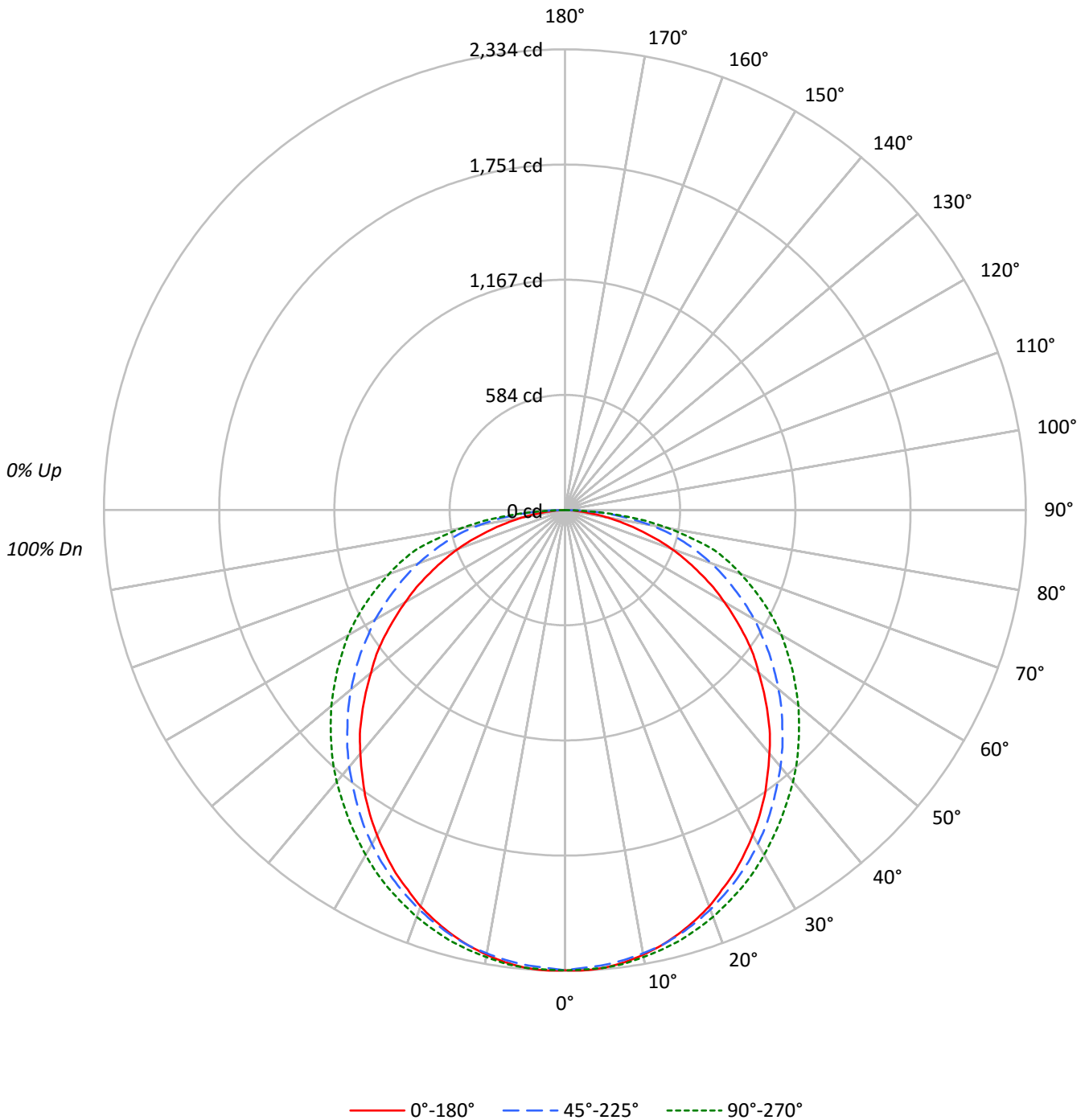
Lumens per Lamp: N/A  
Luminaire Lumens: 7070.0 lumens  
Efficiency: N/A  
Efficacy: 110.1 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.29 / 1.38  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 64.2  
Input Voltage (V): NR  
Input Current (A<sub>in</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	92	89	92	89	87	88	86	84	82
2	98	89	81	75	95	87	80	74	83	78	73	80	75	71	77	73	69	67
3	89	77	69	62	86	76	68	61	73	66	60	70	64	59	67	62	58	56
4	81	68	59	52	79	67	58	52	64	57	51	62	56	50	60	54	50	47
5	74	61	52	45	72	60	51	44	58	50	44	56	49	43	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	38	50	43	38	49	42	38	36
7	64	50	41	34	62	49	40	34	47	39	34	46	39	34	44	38	33	31
8	59	45	37	31	57	45	36	30	43	36	30	42	35	30	41	34	30	28
9	55	41	33	27	54	41	33	27	40	32	27	39	32	27	38	31	27	25
10	52	38	30	25	50	38	30	25	37	30	25	36	29	25	35	29	24	23

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	3137	3137	3137
5°	3143	3124	3143
10°	3125	3115	3141
15°	3098	3104	3143
20°	3060	3083	3140
25°	3012	3061	3138
30°	2956	3036	3134
35°	2897	3005	3136
40°	2830	2983	3156
45°	2763	2964	3182
50°	2681	2956	3231
55°	2614	2960	3296
60°	2512	2986	3409
65°	2397	3017	3532
70°	2270	3110	3728
75°	2024	3244	4073
80°	1726	3435	4162
85°	1232	3404	3983



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	220.7	3.1
10°-20°	631.0	8.9
20°-30°	953.0	13.5
30°-40°	1148.6	16.2
40°-50°	1205.8	17.1
50°-60°	1128.1	16.0
60°-70°	931.6	13.2
70°-80°	634.8	9.0
80°-90°	216.5	3.1
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°	1804.6	25.5
0°-40°	2953.2	41.8
0°-60°	5287.1	74.8
0°-90°	7070.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7070.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2332	2332	2332	2332	2332	
5°	2327	2325	2313	2327	2327	221
15°	2224	2226	2228	2252	2257	627
25°	2029	2038	2062	2102	2114	934
35°	1764	1783	1830	1891	1909	1102
45°	1452	1482	1558	1642	1672	1120
55°	1114	1159	1262	1365	1405	994
65°	753	816	948	1067	1110	747
75°	389	478	624	741	784	415
85°	80	157	220	249	258	100
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2331.6	2331.6	2331.6	2331.6	2331.6
2.5°	2334.0	2331.6	2319.9	2331.6	2329.3
5°	2326.9	2324.6	2312.9	2326.9	2326.9
7.5°	2310.5	2310.5	2298.8	2315.2	2317.6
10°	2287.1	2287.1	2280.0	2298.8	2298.8
12.5°	2258.9	2258.9	2258.9	2277.7	2280.0
15°	2223.7	2226.1	2228.4	2251.9	2256.6
17.5°	2181.5	2186.2	2193.2	2221.4	2226.1
20°	2136.9	2141.6	2153.4	2186.2	2193.2
22.5°	2080.6	2092.4	2108.8	2146.3	2153.4
25°	2029.0	2038.4	2061.9	2101.7	2113.5
27.5°	1965.7	1979.8	2010.3	2052.5	2068.9
30°	1902.4	1916.4	1954.0	2003.2	2017.3
32.5°	1834.3	1855.4	1895.3	1946.9	1963.3
35°	1764.0	1782.7	1829.6	1890.6	1909.4
37.5°	1686.6	1712.4	1764.0	1829.6	1853.1
40°	1611.5	1639.6	1698.3	1768.7	1796.8
42.5°	1536.4	1564.6	1630.3	1710.0	1738.2
45°	1452.0	1482.5	1557.5	1642.0	1672.5
47.5°	1367.5	1405.1	1487.2	1576.3	1609.1
50°	1280.8	1323.0	1412.1	1505.9	1543.5
52.5°	1203.3	1243.2	1337.0	1437.9	1473.1
55°	1114.2	1158.8	1262.0	1365.2	1405.1
57.5°	1022.7	1072.0	1182.2	1294.8	1334.7
60°	933.6	987.5	1109.5	1222.1	1266.7
62.5°	846.8	900.7	1027.4	1144.7	1189.3
65°	753.0	816.3	947.7	1067.3	1109.5
67.5°	663.8	731.9	870.3	987.5	1029.8
70°	577.0	642.7	790.5	905.4	947.7
72.5°	483.2	558.3	706.1	825.7	870.3
75°	389.4	478.5	624.0	741.2	783.5
77.5°	302.6	394.1	539.5	635.7	656.8
80°	222.8	316.7	443.3	511.4	537.2
82.5°	143.1	236.9	337.8	387.0	408.2
85°	79.8	157.2	220.5	248.6	258.0
87.5°	32.8	68.0	89.1	100.9	100.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)