

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: P310464

Luminaire Tested: **24FCZ2-75HE-UNV-L82765-RDP-CP125-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: P310464  
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-L82765-RDP-CP125-W2A-U-3000K  
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" 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**

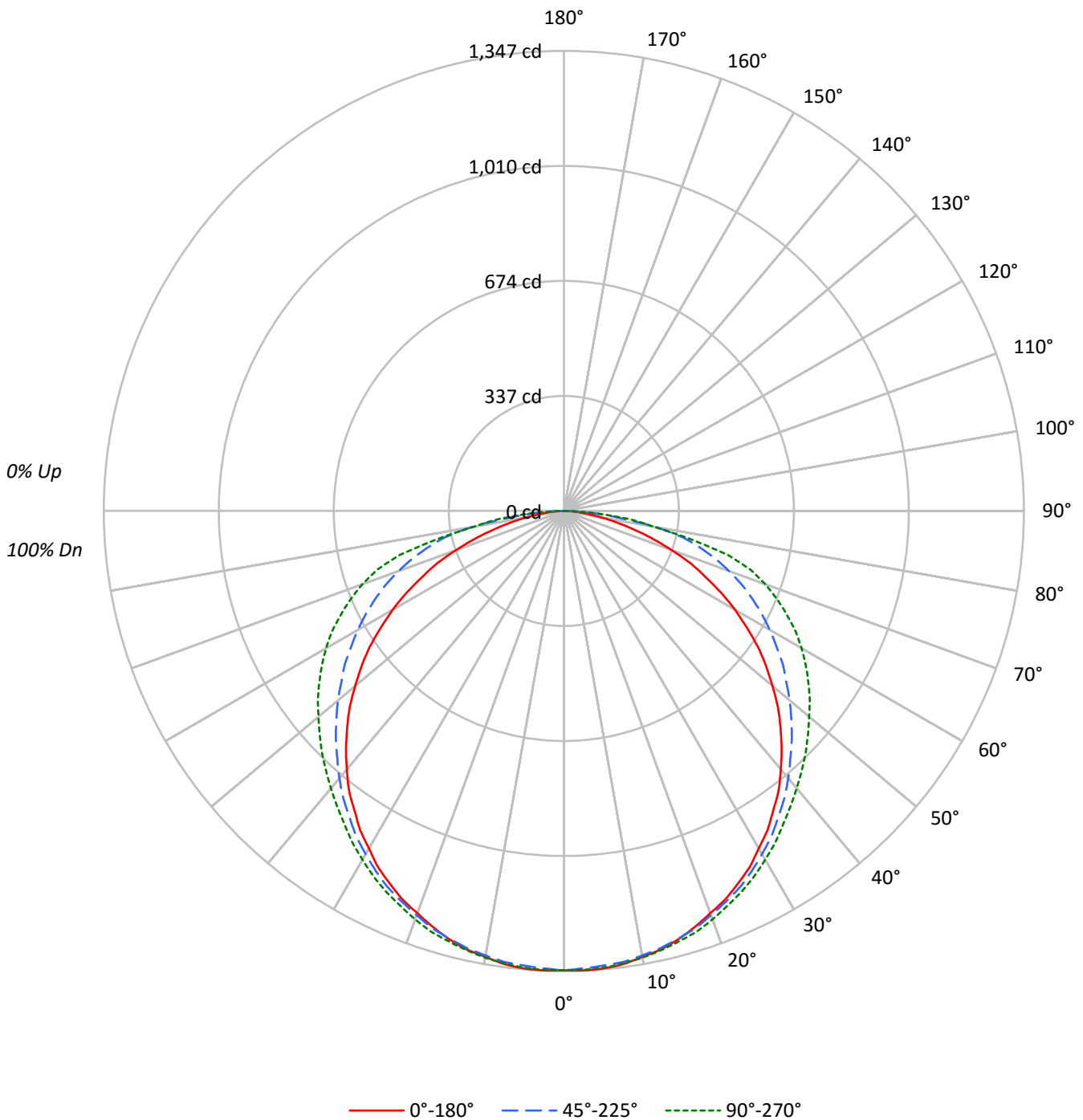
Lumens per Lamp: N/A  
Luminaire Lumens: 4276.0 lumens  
Efficiency: N/A  
Efficacy: 68.5 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 62.4  
Input Voltage (V): NR  
Input Current (Ain): NR  
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°	1809	1809	1809
5°	1816	1805	1813
10°	1811	1805	1814
15°	1808	1805	1817
20°	1795	1804	1822
25°	1788	1807	1826
30°	1773	1803	1832
35°	1756	1798	1839
40°	1736	1796	1863
45°	1707	1796	1905
50°	1669	1807	1962
55°	1627	1836	2050
60°	1558	1872	2163
65°	1458	1938	2296
70°	1327	2028	2470
75°	1124	2139	2580
80°	887	2152	2087
85°	655	1636	1834



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	127.6	3.0
10°-20°	367.1	8.6
20°-30°	561.4	13.1
30°-40°	686.3	16.0
40°-50°	731.4	17.1
50°-60°	699.3	16.4
60°-70°	592.4	13.9
70°-80°	398.2	9.3
80°-90°	112.3	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°	1056.0	24.7
0°-40°	1742.3	40.7
0°-60°	3173.1	74.2
0°-90°	4276.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4276.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1345	1345	1345	1345	1345	
5°	1345	1343	1336	1343	1343	128
15°	1298	1298	1296	1306	1304	366
25°	1205	1209	1217	1228	1230	555
35°	1069	1077	1094	1116	1120	670
45°	897	912	944	984	1001	692
55°	694	719	783	844	874	618
65°	458	505	609	689	721	455
75°	216	295	412	482	496	232
85°	42	87	106	114	119	52
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1344.7	1344.7	1344.7	1344.7	1344.7
2.5°	1346.8	1346.8	1340.4	1344.7	1344.7
5°	1344.7	1342.6	1336.2	1342.6	1342.6
7.5°	1338.3	1336.2	1332.0	1338.3	1336.2
10°	1325.6	1325.6	1321.3	1327.7	1327.7
12.5°	1315.0	1312.9	1310.7	1319.2	1317.1
15°	1298.0	1298.0	1295.9	1306.5	1304.4
17.5°	1276.8	1278.9	1281.1	1289.5	1291.7
20°	1253.5	1257.7	1259.8	1272.6	1272.6
22.5°	1232.3	1234.4	1238.6	1251.4	1251.4
25°	1204.7	1208.9	1217.4	1228.0	1230.1
27.5°	1177.1	1179.2	1189.9	1204.7	1206.8
30°	1141.1	1147.4	1160.2	1177.1	1179.2
32.5°	1109.3	1115.6	1130.5	1147.4	1151.7
35°	1069.0	1077.4	1094.4	1115.6	1119.9
37.5°	1032.9	1039.3	1060.5	1083.8	1090.2
40°	988.4	1001.1	1022.3	1049.9	1060.5
42.5°	943.8	956.5	982.0	1018.1	1030.8
45°	897.2	912.0	943.8	984.1	1001.1
47.5°	850.5	867.5	903.5	950.2	969.3
50°	797.5	818.7	863.2	916.2	937.5
52.5°	746.6	772.0	820.8	880.2	907.8
55°	693.5	719.0	782.6	844.1	873.8
57.5°	634.2	668.1	738.1	808.1	839.9
60°	579.0	610.8	695.7	772.0	803.8
62.5°	519.6	562.1	653.3	733.8	765.7
65°	458.1	504.8	608.7	689.3	721.1
67.5°	403.0	453.9	564.2	644.8	676.6
70°	337.2	400.9	515.4	596.0	627.8
72.5°	275.7	345.7	464.5	543.0	572.7
75°	216.3	294.8	411.5	481.5	496.3
77.5°	161.2	243.9	356.3	386.0	375.4
80°	114.5	195.1	277.8	263.0	269.4
82.5°	74.2	148.5	171.8	195.1	201.5
85°	42.4	87.0	106.0	114.5	118.8
87.5°	19.1	31.8	42.4	42.4	40.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)