

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: P313749

Luminaire Tested: **24FCZ2-70HE-UNV-L83050-RDP-CA125-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: P313749  
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: 24FCZ2-70HE-UNV-L83050-RDP-CA125-W2A-U-5000K  
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" ACRYLIC 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**

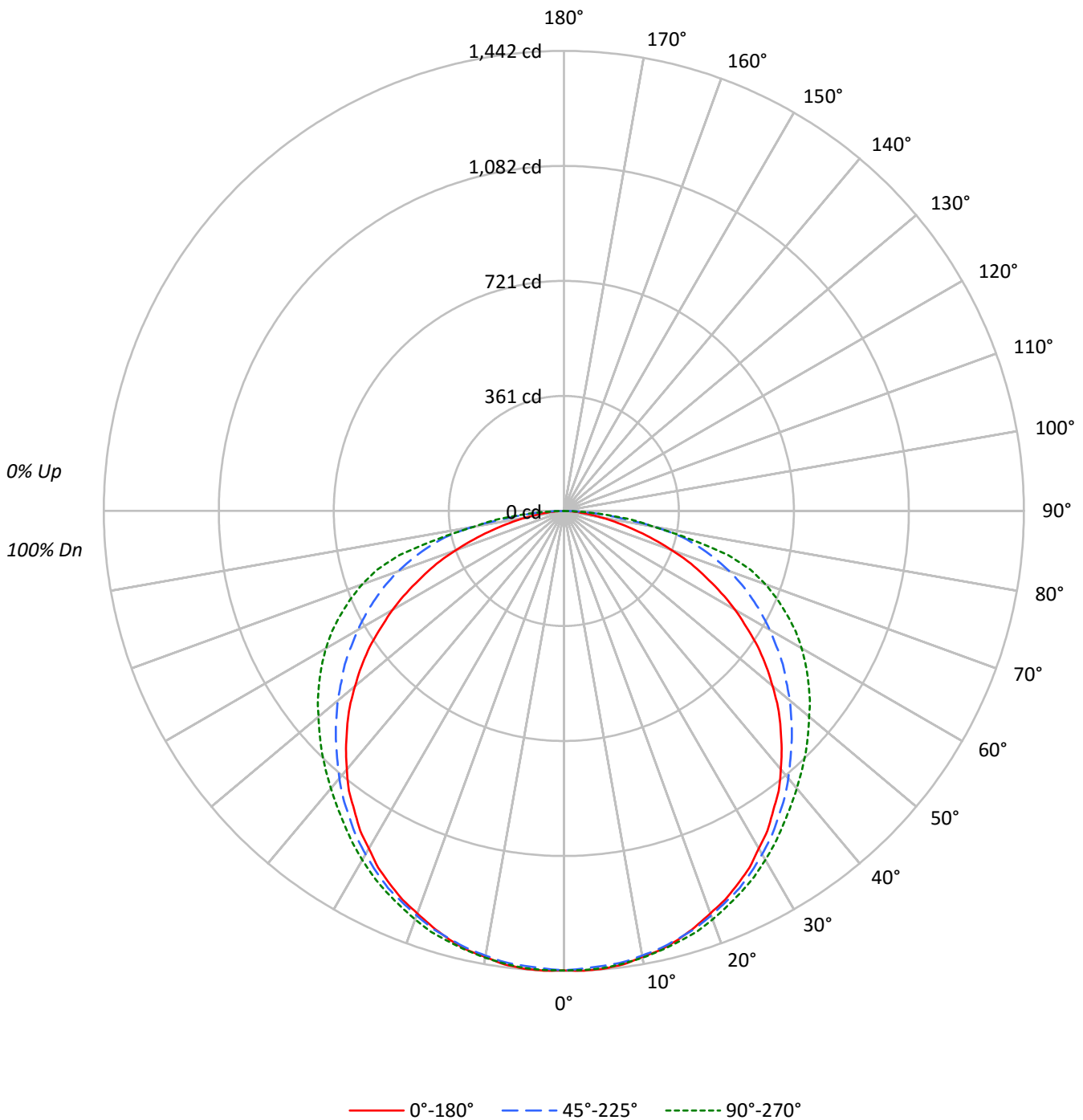
Lumens per Lamp: N/A  
Luminaire Lumens: 4579.0 lumens  
Efficiency: N/A  
Efficacy: 75.7 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 60.5  
Input Voltage (V): NR  
Input Current (A<sub>in</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	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°	1938	1938	1938
5°	1945	1933	1942
10°	1939	1933	1943
15°	1936	1933	1946
20°	1922	1932	1951
25°	1915	1935	1956
30°	1898	1930	1962
35°	1880	1925	1970
40°	1859	1923	1995
45°	1828	1923	2040
50°	1788	1935	2101
55°	1742	1966	2195
60°	1668	2005	2316
65°	1562	2075	2458
70°	1421	2171	2645
75°	1205	2290	2763
80°	950	2305	2235
85°	701	1754	1964



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	136.6	3.0
10°-20°	393.1	8.6
20°-30°	601.2	13.1
30°-40°	734.9	16.0
40°-50°	783.3	17.1
50°-60°	748.9	16.4
60°-70°	634.4	13.9
70°-80°	426.4	9.3
80°-90°	120.3	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°	1130.9	24.7
0°-40°	1865.8	40.7
0°-60°	3397.9	74.2
0°-90°	4579.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4579.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1440	1440	1440	1440	1440	
5°	1440	1438	1431	1438	1438	137
15°	1390	1390	1388	1399	1397	392
25°	1290	1295	1304	1315	1317	595
35°	1145	1154	1172	1195	1199	717
45°	961	977	1011	1054	1072	741
55°	743	770	838	904	936	661
65°	491	541	652	738	772	487
75°	232	316	441	516	532	248
85°	45	93	114	123	127	56
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1440.0	1440.0	1440.0	1440.0	1440.0
2.5°	1442.2	1442.2	1435.4	1440.0	1440.0
5°	1440.0	1437.7	1430.9	1437.7	1437.7
7.5°	1433.2	1430.9	1426.3	1433.2	1430.9
10°	1419.5	1419.5	1415.0	1421.8	1421.8
12.5°	1408.2	1405.9	1403.6	1412.7	1410.4
15°	1390.0	1390.0	1387.7	1399.1	1396.8
17.5°	1367.3	1369.6	1371.8	1380.9	1383.2
20°	1342.3	1346.8	1349.1	1362.7	1362.7
22.5°	1319.6	1321.9	1326.4	1340.0	1340.0
25°	1290.1	1294.6	1303.7	1315.0	1317.3
27.5°	1260.5	1262.8	1274.2	1290.1	1292.3
30°	1221.9	1228.7	1242.4	1260.5	1262.8
32.5°	1187.9	1194.7	1210.6	1228.7	1233.3
35°	1144.7	1153.8	1172.0	1194.7	1199.2
37.5°	1106.1	1112.9	1135.6	1160.6	1167.4
40°	1058.4	1072.0	1094.7	1124.3	1135.6
42.5°	1010.7	1024.3	1051.6	1090.2	1103.8
45°	960.7	976.6	1010.7	1053.9	1072.0
47.5°	910.8	928.9	967.5	1017.5	1038.0
50°	854.0	876.7	924.4	981.2	1003.9
52.5°	799.5	826.7	879.0	942.6	972.1
55°	742.7	769.9	838.1	904.0	935.7
57.5°	679.1	715.4	790.4	865.3	899.4
60°	620.0	654.1	745.0	826.7	860.8
62.5°	556.5	601.9	699.5	785.8	819.9
65°	490.6	540.6	651.8	738.2	772.2
67.5°	431.5	486.0	604.1	690.5	724.5
70°	361.1	429.3	551.9	638.2	672.3
72.5°	295.3	370.2	497.4	581.4	613.2
75°	231.7	315.7	440.6	515.6	531.5
77.5°	172.6	261.2	381.6	413.4	402.0
80°	122.6	209.0	297.5	281.6	288.4
82.5°	79.5	159.0	184.0	209.0	215.8
85°	45.4	93.1	113.6	122.6	127.2
87.5°	20.4	34.1	45.4	45.4	43.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)