

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: P309785

Luminaire Tested: **24FCZ2-75HE-UNV-L82765-HRP-CA125-W2A-U-5500K**

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: P309785  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-20)  
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-HRP-CA125-W2A-U-5500K  
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" ACRYLIC SHEET  
Light Source: (336) 5500K 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**

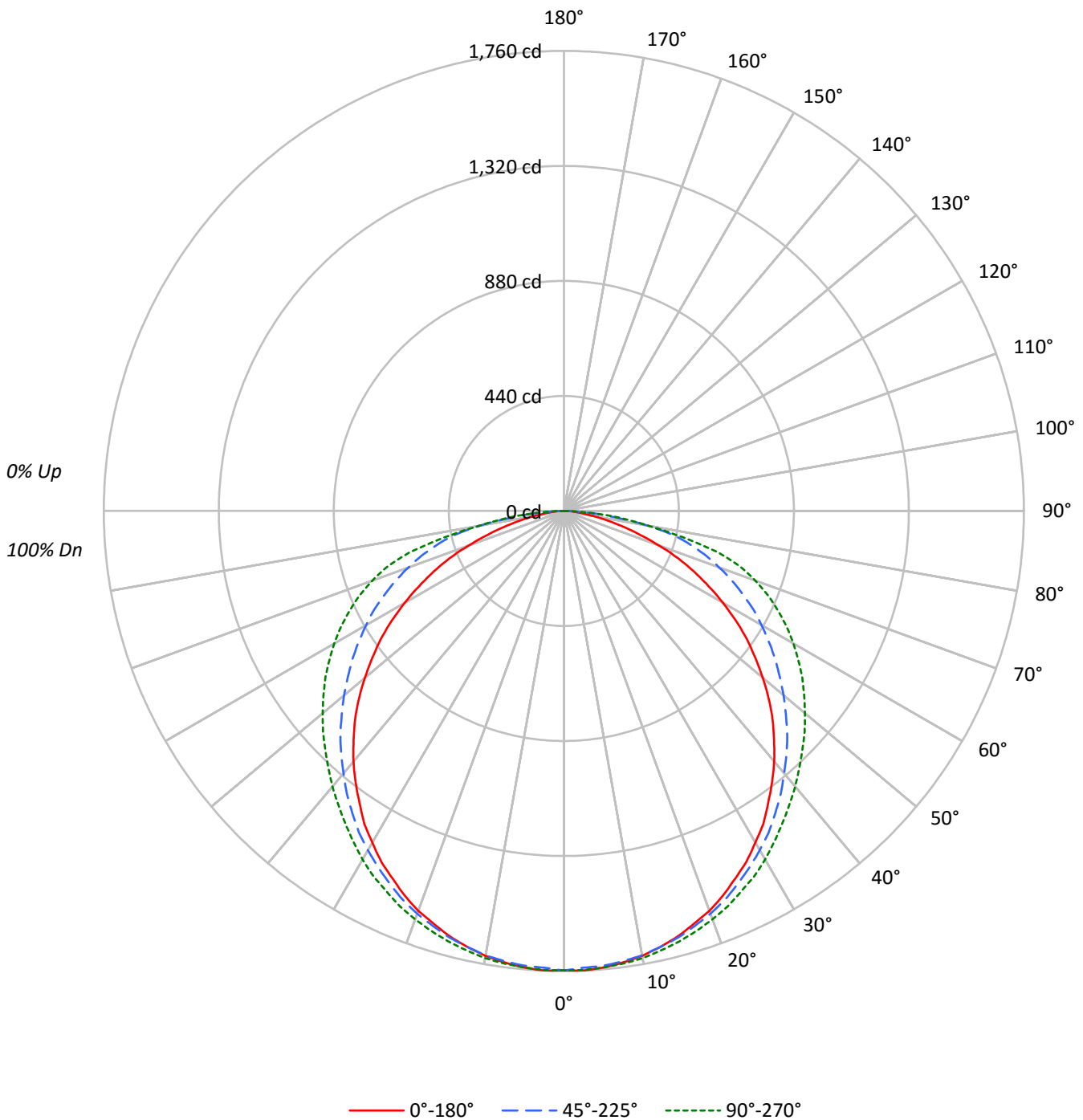
Lumens per Lamp: N/A  
Luminaire Lumens: 5417.0 lumens  
Efficiency: N/A  
Efficacy: 83.9 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.3 / 1.4  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 64.6  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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	101	96	93	96	93	90	92	90	87	89	86	84	82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	59	68	63	58	56
4	81	68	59	52	79	67	59	52	65	57	51	62	56	50	60	54	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	38	50	43	38	49	42	38	36
7	63	50	41	34	62	49	40	34	47	39	34	46	39	34	44	38	33	31
8	59	45	36	30	57	44	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	24	35	29	24	23

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

	0°	45°	90°
0°	2365	2365	2365
5°	2368	2358	2368
10°	2361	2358	2373
15°	2347	2353	2376
20°	2331	2348	2380
25°	2303	2337	2384
30°	2276	2329	2392
35°	2239	2317	2395
40°	2199	2302	2418
45°	2149	2300	2455
50°	2079	2298	2521
55°	2006	2314	2612
60°	1892	2349	2728
65°	1747	2404	2881
70°	1526	2489	3069
75°	1238	2617	3171
80°	914	2565	2565
85°	701	1891	2135



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	166.5	3.1
10°-20°	478.1	8.8
20°-30°	727.9	13.4
30°-40°	883.8	16.3
40°-50°	933.7	17.2
50°-60°	881.1	16.3
60°-70°	732.6	13.5
70°-80°	482.0	8.9
80°-90°	131.4	2.4
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°	1372.5	25.3
0°-40°	2256.3	41.7
0°-60°	4071.1	75.2
0°-90°	5417.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5417.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1758	1758	1758	1758	1758	
5°	1753	1753	1746	1753	1753	167
15°	1685	1687	1690	1705	1705	475
25°	1551	1560	1574	1601	1606	716
35°	1363	1379	1411	1447	1458	853
45°	1129	1152	1209	1268	1290	870
55°	855	891	986	1080	1114	762
65°	549	612	755	866	905	543
75°	238	347	504	596	610	257
85°	45	100	122	136	138	56
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1757.5	1757.5	1757.5	1757.5	1757.5
2.5°	1759.8	1757.5	1748.5	1757.5	1757.5
5°	1753.0	1753.0	1746.2	1753.0	1753.0
7.5°	1741.7	1741.7	1737.1	1746.2	1746.2
10°	1728.1	1728.1	1725.8	1737.1	1737.1
12.5°	1707.7	1709.9	1707.7	1721.3	1721.3
15°	1685.0	1687.2	1689.5	1705.4	1705.4
17.5°	1655.5	1660.0	1664.6	1682.7	1685.0
20°	1628.3	1630.6	1639.6	1660.0	1662.3
22.5°	1592.0	1598.8	1610.1	1630.6	1637.4
25°	1551.2	1560.3	1573.9	1601.1	1605.6
27.5°	1512.6	1519.4	1537.6	1567.1	1576.1
30°	1465.0	1476.3	1499.0	1528.5	1539.8
32.5°	1419.6	1431.0	1458.2	1489.9	1499.0
35°	1363.0	1378.8	1410.6	1446.9	1458.2
37.5°	1308.5	1324.4	1363.0	1403.8	1417.4
40°	1251.8	1270.0	1310.8	1358.4	1376.6
42.5°	1190.6	1215.5	1260.9	1313.1	1333.5
45°	1129.4	1152.0	1208.7	1267.7	1290.4
47.5°	1063.6	1090.8	1152.0	1222.3	1249.6
50°	993.3	1027.3	1097.6	1174.7	1204.2
52.5°	923.0	961.5	1040.9	1127.1	1158.8
55°	855.0	891.2	986.5	1079.5	1113.5
57.5°	780.1	825.5	929.8	1029.6	1063.6
60°	703.0	752.9	873.1	977.4	1013.7
62.5°	625.9	682.6	818.7	923.0	961.5
65°	548.8	612.3	755.2	866.3	904.9
67.5°	474.0	544.3	696.2	807.3	845.9
70°	387.8	476.2	632.7	741.6	780.1
72.5°	308.4	410.5	571.5	673.5	707.6
75°	238.1	347.0	503.5	596.4	610.0
77.5°	174.6	283.5	433.2	464.9	467.2
80°	117.9	226.8	331.1	326.6	331.1
82.5°	77.1	170.1	208.6	233.6	235.9
85°	45.4	99.8	122.5	136.1	138.3
87.5°	22.7	34.0	43.1	45.4	49.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)