

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: P313412

Luminaire Tested: **24FCZ2-75HE-UNV-L83050-HRP-CP250-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: P313412  
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-L83050-HRP-CP250-W2A-U-4000K  
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.250"  
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**

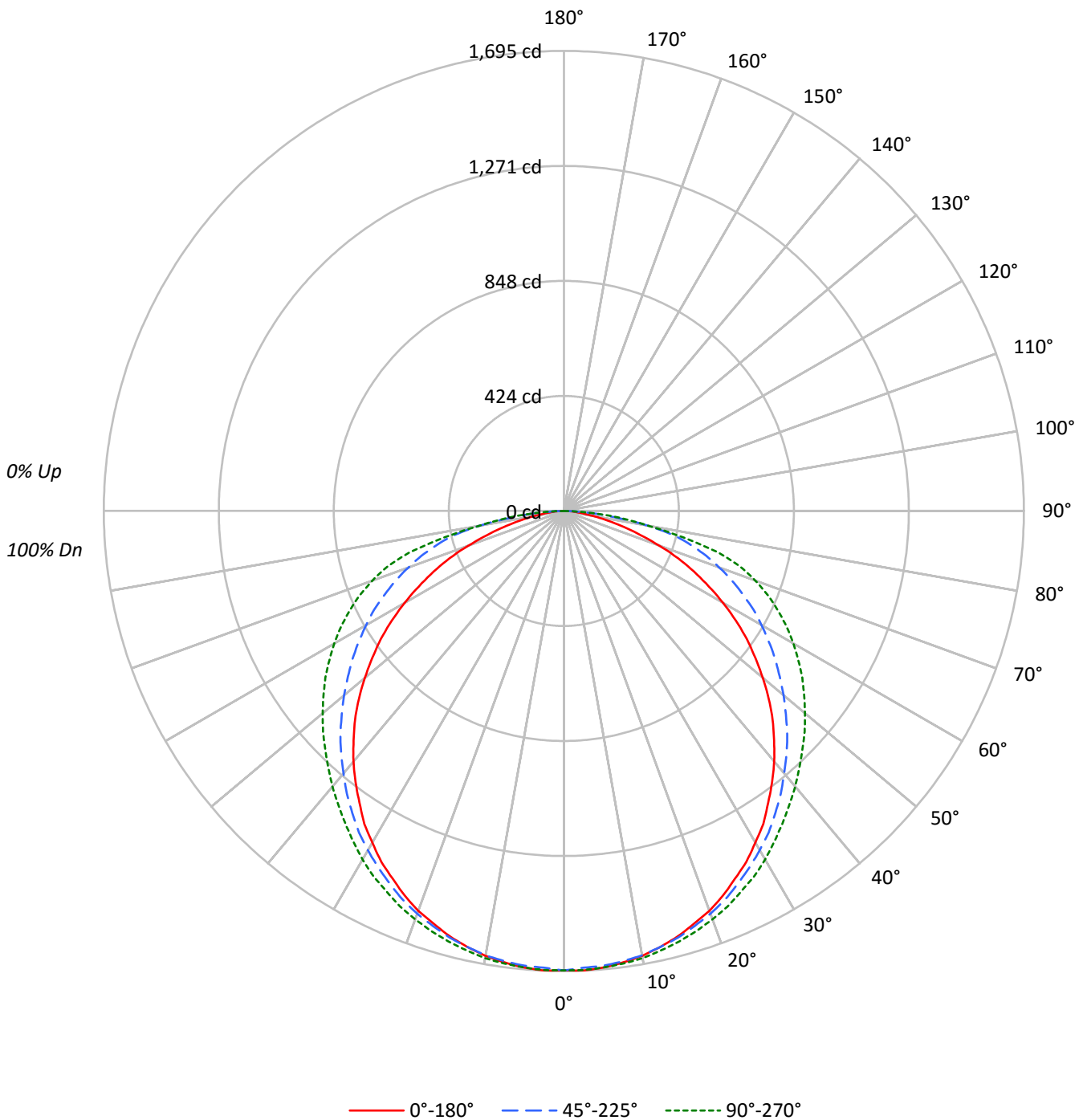
Lumens per Lamp: N/A  
Luminaire Lumens: 5217.0 lumens  
Efficiency: N/A  
Efficacy: 81.3 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.3 / 1.4  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 64.2  
Input Voltage (V): NR  
Input Current (Ain): NR  
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	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°	2278	2278	2278
5°	2280	2271	2280
10°	2274	2271	2286
15°	2260	2266	2288
20°	2245	2261	2292
25°	2218	2250	2296
30°	2192	2243	2304
35°	2156	2231	2307
40°	2118	2217	2328
45°	2070	2215	2365
50°	2002	2213	2427
55°	1932	2229	2516
60°	1822	2263	2627
65°	1683	2316	2774
70°	1469	2397	2956
75°	1192	2521	3054
80°	880	2471	2471
85°	675	1820	2056



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	160.3	3.1
10°-20°	460.5	8.8
20°-30°	701.0	13.4
30°-40°	851.2	16.3
40°-50°	899.3	17.2
50°-60°	848.5	16.3
60°-70°	705.5	13.5
70°-80°	464.2	8.9
80°-90°	126.5	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°	1321.8	25.3
0°-40°	2173.0	41.7
0°-60°	3920.8	75.2
0°-90°	5217.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5217.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1693	1693	1693	1693	1693	
5°	1688	1688	1682	1688	1688	160
15°	1623	1625	1627	1642	1642	458
25°	1494	1503	1516	1542	1546	689
35°	1313	1328	1358	1393	1404	822
45°	1088	1110	1164	1221	1243	838
55°	823	858	950	1040	1072	733
65°	528	590	727	834	871	522
75°	229	334	485	574	588	247
85°	44	96	118	131	133	53
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1692.7	1692.7	1692.7	1692.7	1692.7
2.5°	1694.8	1692.7	1683.9	1692.7	1692.7
5°	1688.3	1688.3	1681.7	1688.3	1688.3
7.5°	1677.4	1677.4	1673.0	1681.7	1681.7
10°	1664.3	1664.3	1662.1	1673.0	1673.0
12.5°	1644.6	1646.8	1644.6	1657.7	1657.7
15°	1622.8	1625.0	1627.1	1642.4	1642.4
17.5°	1594.4	1598.7	1603.1	1620.6	1622.8
20°	1568.2	1570.4	1579.1	1598.7	1600.9
22.5°	1533.2	1539.8	1550.7	1570.4	1576.9
25°	1493.9	1502.6	1515.7	1542.0	1546.3
27.5°	1456.8	1463.3	1480.8	1509.2	1517.9
30°	1410.9	1421.8	1443.7	1472.1	1483.0
32.5°	1367.2	1378.2	1404.4	1434.9	1443.7
35°	1312.6	1327.9	1358.5	1393.4	1404.4
37.5°	1260.2	1275.5	1312.6	1351.9	1365.0
40°	1205.6	1223.1	1262.4	1308.3	1325.7
42.5°	1146.6	1170.7	1214.3	1264.6	1284.2
45°	1087.7	1109.5	1164.1	1220.9	1242.7
47.5°	1024.3	1050.5	1109.5	1177.2	1203.4
50°	956.6	989.4	1057.1	1131.4	1159.7
52.5°	888.9	926.0	1002.5	1085.5	1116.1
55°	823.4	858.3	950.1	1039.6	1072.4
57.5°	751.3	795.0	895.5	991.6	1024.3
60°	677.1	725.1	840.9	941.3	976.3
62.5°	602.8	657.4	788.5	888.9	926.0
65°	528.5	589.7	727.3	834.3	871.4
67.5°	456.5	524.2	670.5	777.5	814.7
70°	373.5	458.7	609.4	714.2	751.3
72.5°	297.0	395.3	550.4	648.7	681.4
75°	229.3	334.2	484.9	574.4	587.5
77.5°	168.2	273.0	417.2	447.7	449.9
80°	113.6	218.4	318.9	314.5	318.9
82.5°	74.3	163.8	200.9	225.0	227.1
85°	43.7	96.1	117.9	131.0	133.2
87.5°	21.8	32.8	41.5	43.7	48.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)