

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: P309597

Luminaire Tested: **24FCZ2-55HE-UNV-L82765-HRP-CA08-W2A-U-5700K**

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: P309597  
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: 24FCZ2-55HE-UNV-L82765-HRP-CA08-W2A-U-5700K  
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.08" ACRYLIC SHEET  
Light Source: (336) 5700K 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**

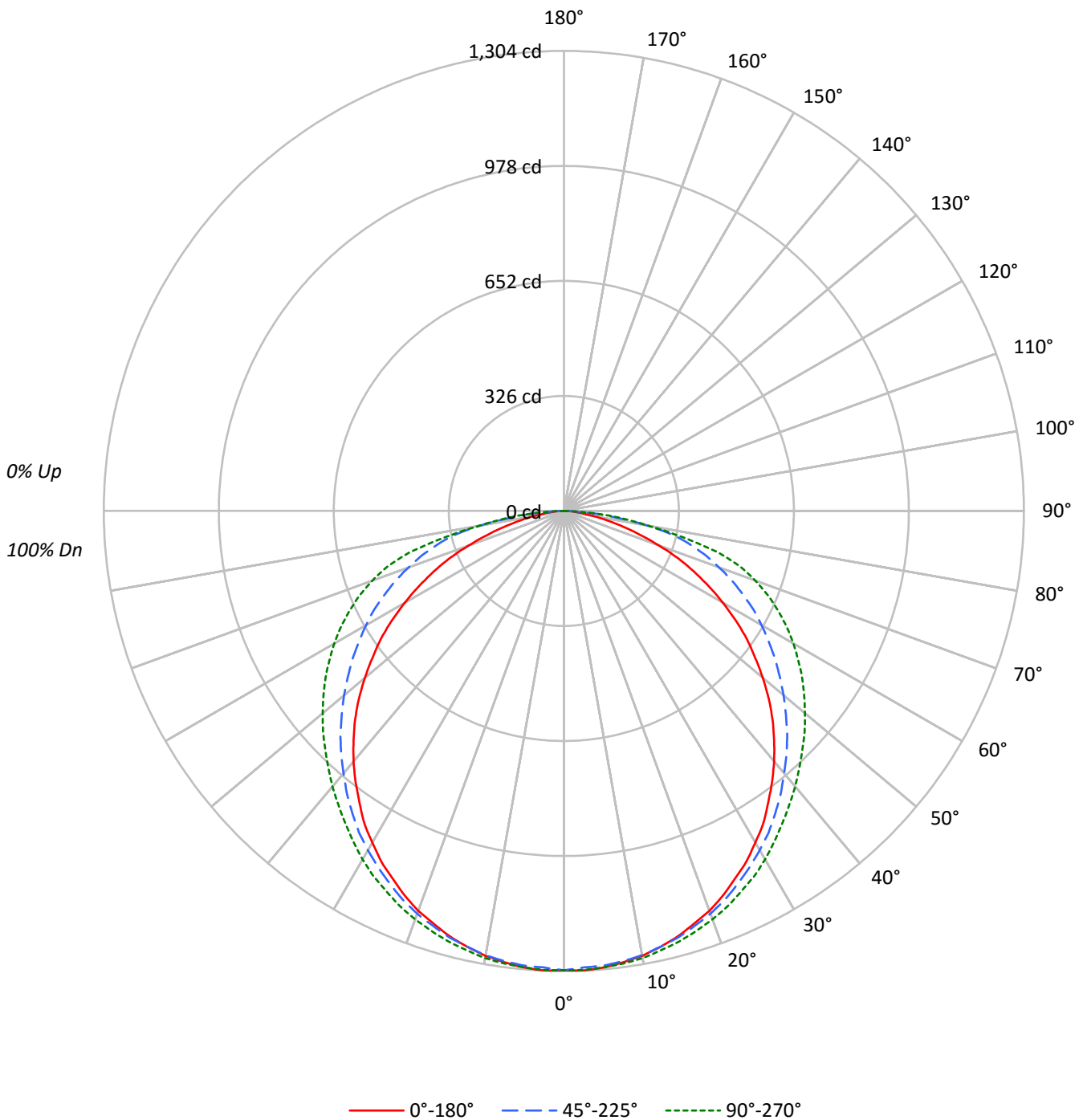
Lumens per Lamp: N/A  
Luminaire Lumens: 4013.0 lumens  
Efficiency: N/A  
Efficacy: 90.6 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.3 / 1.4  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 44.3  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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°	1752	1752	1752
5°	1754	1747	1754
10°	1749	1747	1758
15°	1739	1743	1760
20°	1727	1739	1763
25°	1706	1731	1766
30°	1686	1725	1772
35°	1658	1716	1774
40°	1629	1706	1791
45°	1592	1704	1819
50°	1540	1702	1867
55°	1486	1714	1935
60°	1401	1741	2021
65°	1294	1781	2134
70°	1130	1844	2273
75°	917	1939	2349
80°	677	1901	1901
85°	519	1400	1582



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	123.3	3.1
10°-20°	354.2	8.8
20°-30°	539.2	13.4
30°-40°	654.7	16.3
40°-50°	691.7	17.2
50°-60°	652.7	16.3
60°-70°	542.7	13.5
70°-80°	357.1	8.9
80°-90°	97.3	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°	1016.7	25.3
0°-40°	1671.5	41.7
0°-60°	3015.9	75.2
0°-90°	4013.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4013.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1302	1302	1302	1302	1302	
5°	1299	1299	1294	1299	1299	123
15°	1248	1250	1252	1263	1263	352
25°	1149	1156	1166	1186	1190	530
35°	1010	1022	1045	1072	1080	632
45°	837	854	896	939	956	644
55°	633	660	731	800	825	564
65°	407	454	559	642	670	402
75°	176	257	373	442	452	190
85°	34	74	91	101	102	41
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1302.0	1302.0	1302.0	1302.0	1302.0
2.5°	1303.7	1302.0	1295.3	1302.0	1302.0
5°	1298.7	1298.7	1293.6	1298.7	1298.7
7.5°	1290.3	1290.3	1286.9	1293.6	1293.6
10°	1280.2	1280.2	1278.5	1286.9	1286.9
12.5°	1265.1	1266.7	1265.1	1275.1	1275.1
15°	1248.3	1249.9	1251.6	1263.4	1263.4
17.5°	1226.4	1229.8	1233.1	1246.6	1248.3
20°	1206.3	1207.9	1214.7	1229.8	1231.5
22.5°	1179.4	1184.4	1192.8	1207.9	1213.0
25°	1149.1	1155.9	1165.9	1186.1	1189.5
27.5°	1120.6	1125.6	1139.1	1160.9	1167.6
30°	1085.3	1093.7	1110.5	1132.3	1140.7
32.5°	1051.7	1060.1	1080.3	1103.8	1110.5
35°	1009.7	1021.5	1045.0	1071.9	1080.3
37.5°	969.4	981.1	1009.7	1039.9	1050.0
40°	927.4	940.8	971.1	1006.3	1019.8
42.5°	882.0	900.5	934.1	972.7	987.9
45°	836.7	853.5	895.5	939.1	955.9
47.5°	787.9	808.1	853.5	905.5	925.7
50°	735.9	761.1	813.1	870.3	892.1
52.5°	683.8	712.3	771.1	835.0	858.5
55°	633.4	660.3	730.8	799.7	824.9
57.5°	577.9	611.5	688.8	762.7	787.9
60°	520.8	557.8	646.8	724.1	751.0
62.5°	463.7	505.7	606.5	683.8	712.3
65°	406.6	453.6	559.4	641.8	670.3
67.5°	351.1	403.2	515.8	598.1	626.7
70°	287.3	352.8	468.7	549.4	577.9
72.5°	228.5	304.1	423.4	499.0	524.2
75°	176.4	257.0	373.0	441.8	451.9
77.5°	129.4	210.0	320.9	344.4	346.1
80°	87.4	168.0	245.3	241.9	245.3
82.5°	57.1	126.0	154.6	173.0	174.7
85°	33.6	73.9	90.7	100.8	102.5
87.5°	16.8	25.2	31.9	33.6	37.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)