

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: P313302

Luminaire Tested: **24FCZ2-55HE-UNV-L83050-HRP-CP125-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: P313302  
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-L83050-HRP-CP125-W2A-U-4000K  
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" 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**

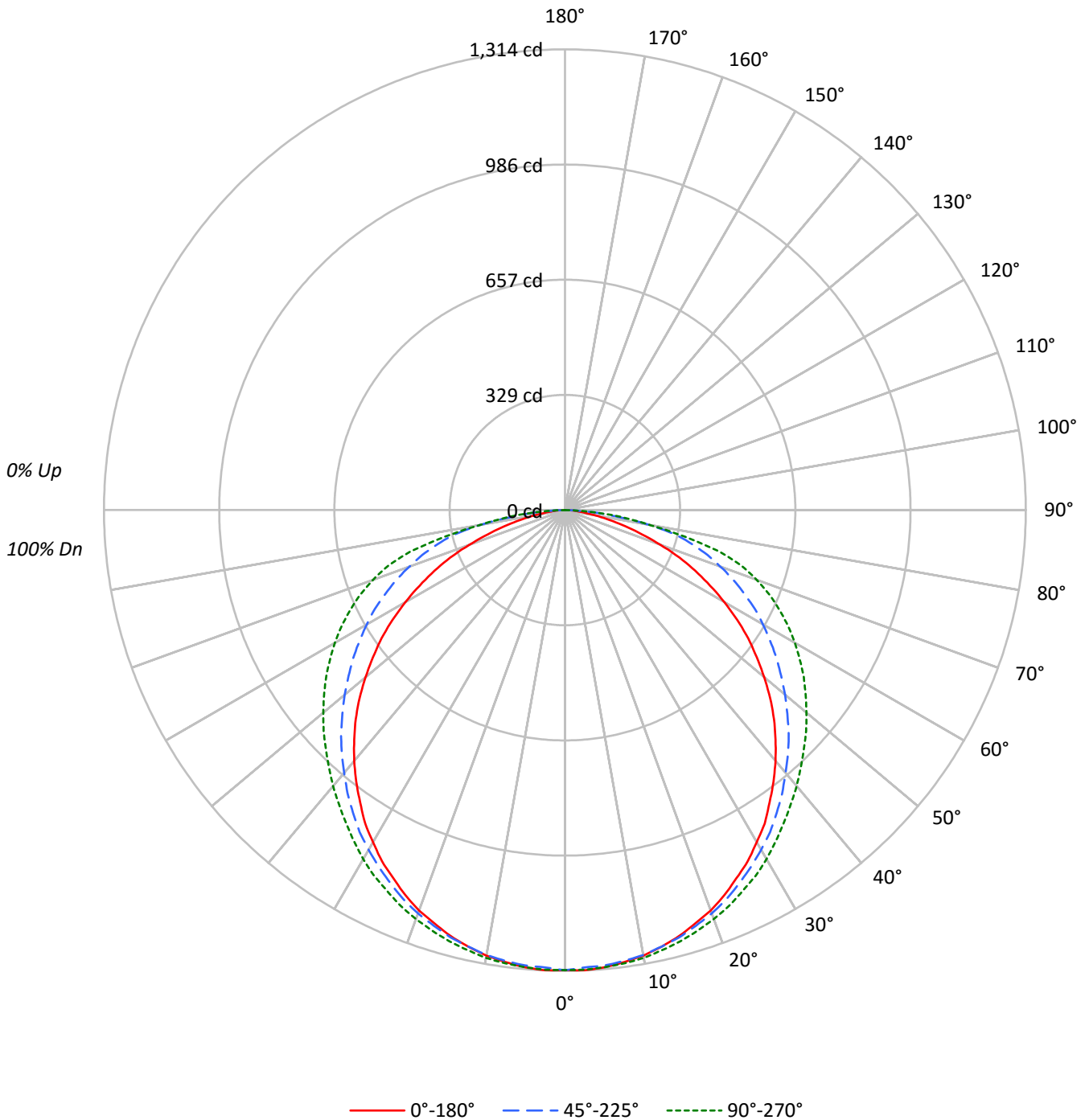
Lumens per Lamp: N/A  
Luminaire Lumens: 4044.0 lumens  
Efficiency: N/A  
Efficacy: 91.7 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.3 / 1.4  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 44.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
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°	1765	1765	1765
5°	1768	1761	1768
10°	1763	1760	1772
15°	1752	1757	1773
20°	1741	1753	1777
25°	1719	1744	1779
30°	1699	1739	1786
35°	1671	1730	1788
40°	1641	1719	1805
45°	1604	1717	1833
50°	1552	1715	1882
55°	1497	1728	1950
60°	1412	1754	2037
65°	1304	1795	2151
70°	1139	1858	2291
75°	924	1954	2367
80°	682	1915	1915
85°	523	1411	1595



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	124.3	3.1
10°-20°	356.9	8.8
20°-30°	543.4	13.4
30°-40°	659.8	16.3
40°-50°	697.1	17.2
50°-60°	657.8	16.3
60°-70°	546.9	13.5
70°-80°	359.8	8.9
80°-90°	98.1	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°	1024.6	25.3
0°-40°	1684.4	41.7
0°-60°	3039.2	75.2
0°-90°	4044.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4044.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1312	1312	1312	1312	1312	
5°	1309	1309	1304	1309	1309	124
15°	1258	1260	1261	1273	1273	355
25°	1158	1165	1175	1195	1199	534
35°	1018	1029	1053	1080	1089	637
45°	843	860	902	946	963	649
55°	638	665	736	806	831	569
65°	410	457	564	647	676	405
75°	178	259	376	445	455	192
85°	34	74	91	102	103	41
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1312.1	1312.1	1312.1	1312.1	1312.1
2.5°	1313.8	1312.1	1305.3	1312.1	1312.1
5°	1308.7	1308.7	1303.6	1308.7	1308.7
7.5°	1300.2	1300.2	1296.8	1303.6	1303.6
10°	1290.1	1290.1	1288.4	1296.8	1296.8
12.5°	1274.8	1276.5	1274.8	1285.0	1285.0
15°	1257.9	1259.6	1261.3	1273.1	1273.1
17.5°	1235.9	1239.3	1242.7	1256.2	1257.9
20°	1215.6	1217.3	1224.0	1239.3	1241.0
22.5°	1188.5	1193.6	1202.0	1217.3	1222.3
25°	1158.0	1164.8	1174.9	1195.3	1198.6
27.5°	1129.2	1134.3	1147.9	1169.9	1176.6
30°	1093.7	1102.1	1119.1	1141.1	1149.6
32.5°	1059.8	1068.3	1088.6	1112.3	1119.1
35°	1017.5	1029.3	1053.0	1080.1	1088.6
37.5°	976.9	988.7	1017.5	1048.0	1058.1
40°	934.5	948.1	978.6	1014.1	1027.7
42.5°	888.8	907.5	941.3	980.2	995.5
45°	843.1	860.0	902.4	946.4	963.3
47.5°	794.0	814.3	860.0	912.5	932.8
50°	741.5	766.9	819.4	877.0	899.0
52.5°	689.1	717.8	777.1	841.4	865.1
55°	638.3	665.4	736.5	805.9	831.3
57.5°	582.4	616.3	694.1	768.6	794.0
60°	524.8	562.1	651.8	729.7	756.8
62.5°	467.3	509.6	611.2	689.1	717.8
65°	409.7	457.1	563.8	646.7	675.5
67.5°	353.8	406.3	519.8	602.7	631.5
70°	289.5	355.5	472.3	553.6	582.4
72.5°	230.2	306.4	426.6	502.8	528.2
75°	177.8	259.0	375.8	445.3	455.4
77.5°	130.4	211.6	323.4	347.1	348.8
80°	88.0	169.3	247.2	243.8	247.2
82.5°	57.6	127.0	155.8	174.4	176.1
85°	33.9	74.5	91.4	101.6	103.3
87.5°	16.9	25.4	32.2	33.9	37.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)