

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: P313671

Luminaire Tested: **24FCZ2-55HE-UNV-L83050-RDP-CA125-W2A-U-3500K**

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: P313671  
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: 24FCZ2-55HE-UNV-L83050-RDP-CA125-W2A-U-3500K  
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" ACRYLIC SHEET  
Light Source: (336) 3500K 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**

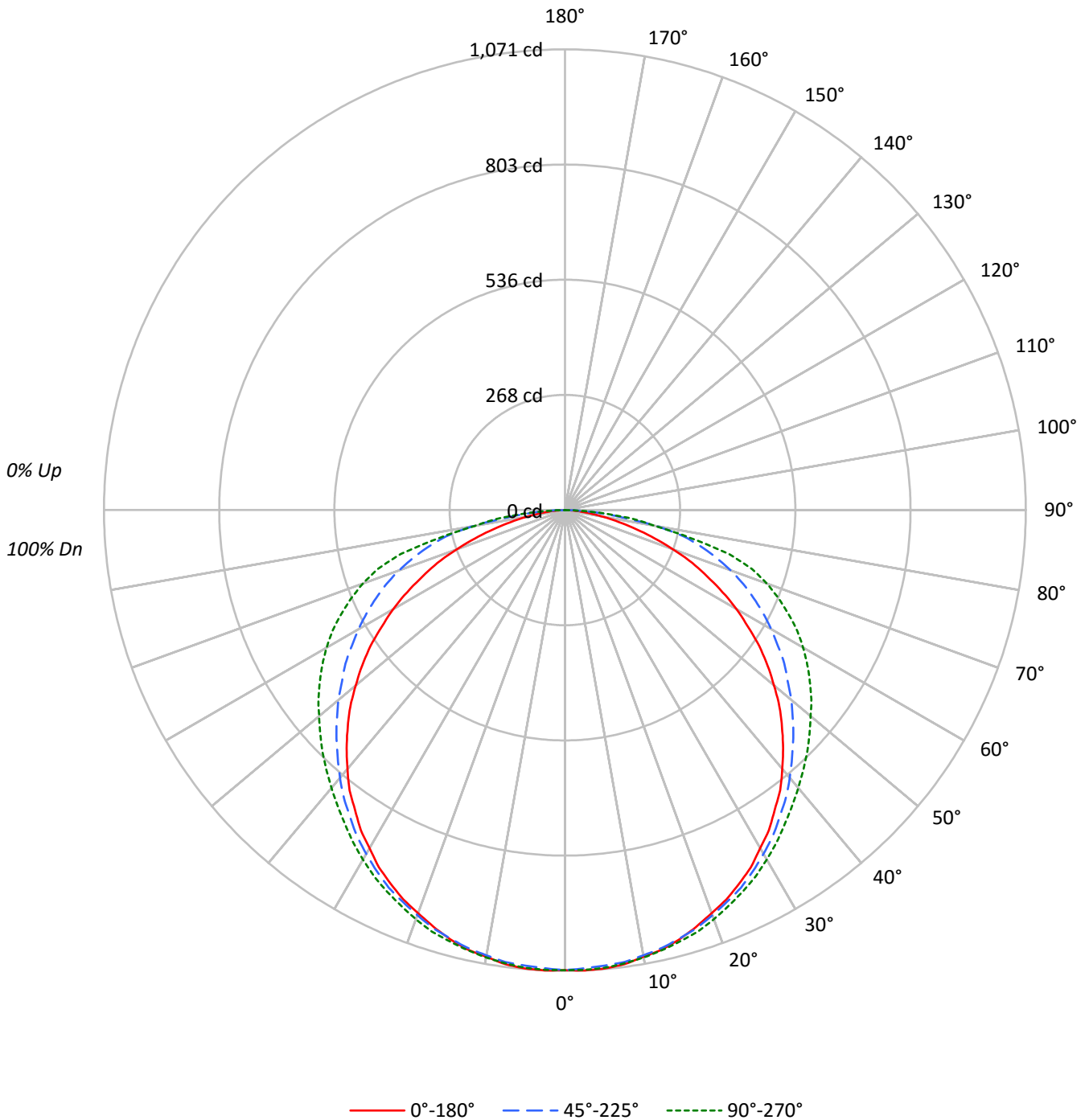
Lumens per Lamp: N/A  
Luminaire Lumens: 3401.0 lumens  
Efficiency: N/A  
Efficacy: 78.9 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 43.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
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	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°	1439	1439	1439
5°	1444	1435	1442
10°	1440	1436	1443
15°	1438	1436	1445
20°	1428	1435	1449
25°	1423	1438	1453
30°	1410	1434	1457
35°	1396	1430	1463
40°	1381	1428	1482
45°	1358	1428	1515
50°	1328	1437	1561
55°	1294	1460	1630
60°	1239	1489	1720
65°	1160	1542	1826
70°	1055	1613	1964
75°	895	1701	2052
80°	706	1712	1660
85°	520	1301	1459



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	101.5	3.0
10°-20°	292.0	8.6
20°-30°	446.5	13.1
30°-40°	545.8	16.0
40°-50°	581.8	17.1
50°-60°	556.2	16.4
60°-70°	471.2	13.9
70°-80°	316.7	9.3
80°-90°	89.3	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°	839.9	24.7
0°-40°	1385.8	40.7
0°-60°	2523.8	74.2
0°-90°	3401.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3401.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1070	1070	1070	1070	1070	
5°	1070	1068	1063	1068	1068	102
15°	1032	1032	1031	1039	1038	291
25°	958	962	968	977	978	442
35°	850	857	870	887	891	533
45°	714	725	751	783	796	550
55°	552	572	622	671	695	491
65°	364	402	484	548	574	362
75°	172	234	327	383	395	184
85°	34	69	84	91	94	42
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1069.5	1069.5	1069.5	1069.5	1069.5
2.5°	1071.2	1071.2	1066.1	1069.5	1069.5
5°	1069.5	1067.8	1062.8	1067.8	1067.8
7.5°	1064.5	1062.8	1059.4	1064.5	1062.8
10°	1054.3	1054.3	1051.0	1056.0	1056.0
12.5°	1045.9	1044.2	1042.5	1049.3	1047.6
15°	1032.4	1032.4	1030.7	1039.2	1037.5
17.5°	1015.5	1017.2	1018.9	1025.7	1027.3
20°	997.0	1000.4	1002.0	1012.2	1012.2
22.5°	980.1	981.8	985.2	995.3	995.3
25°	958.2	961.6	968.3	976.7	978.4
27.5°	936.2	937.9	946.4	958.2	959.9
30°	907.6	912.6	922.8	936.2	937.9
32.5°	882.3	887.3	899.1	912.6	916.0
35°	850.2	857.0	870.5	887.3	890.7
37.5°	821.5	826.6	843.5	862.0	867.1
40°	786.1	796.2	813.1	835.0	843.5
42.5°	750.7	760.8	781.1	809.7	819.9
45°	713.6	725.4	750.7	782.7	796.2
47.5°	676.5	690.0	718.6	755.7	770.9
50°	634.3	651.2	686.6	728.8	745.6
52.5°	593.8	614.0	652.8	700.1	722.0
55°	551.6	571.9	622.5	671.4	695.0
57.5°	504.4	531.4	587.1	642.7	668.0
60°	460.5	485.8	553.3	614.0	639.3
62.5°	413.3	447.0	519.6	583.7	609.0
65°	364.4	401.5	484.2	548.3	573.6
67.5°	320.5	361.0	448.7	512.8	538.1
70°	268.2	318.8	409.9	474.0	499.3
72.5°	219.3	275.0	369.4	431.9	455.5
75°	172.1	234.5	327.3	382.9	394.7
77.5°	128.2	194.0	283.4	307.0	298.6
80°	91.1	155.2	221.0	209.2	214.2
82.5°	59.0	118.1	136.6	155.2	160.3
85°	33.7	69.2	84.3	91.1	94.5
87.5°	15.2	25.3	33.7	33.7	32.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)