

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: P313298

Luminaire Tested: **24FCZ2-55HE-UNV-L83050-HRP-CA125-W2A-U-4500K**

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: P313298  
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-CA125-W2A-U-4500K  
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" ACRYLIC SHEET  
Light Source: (336) 4500K 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**

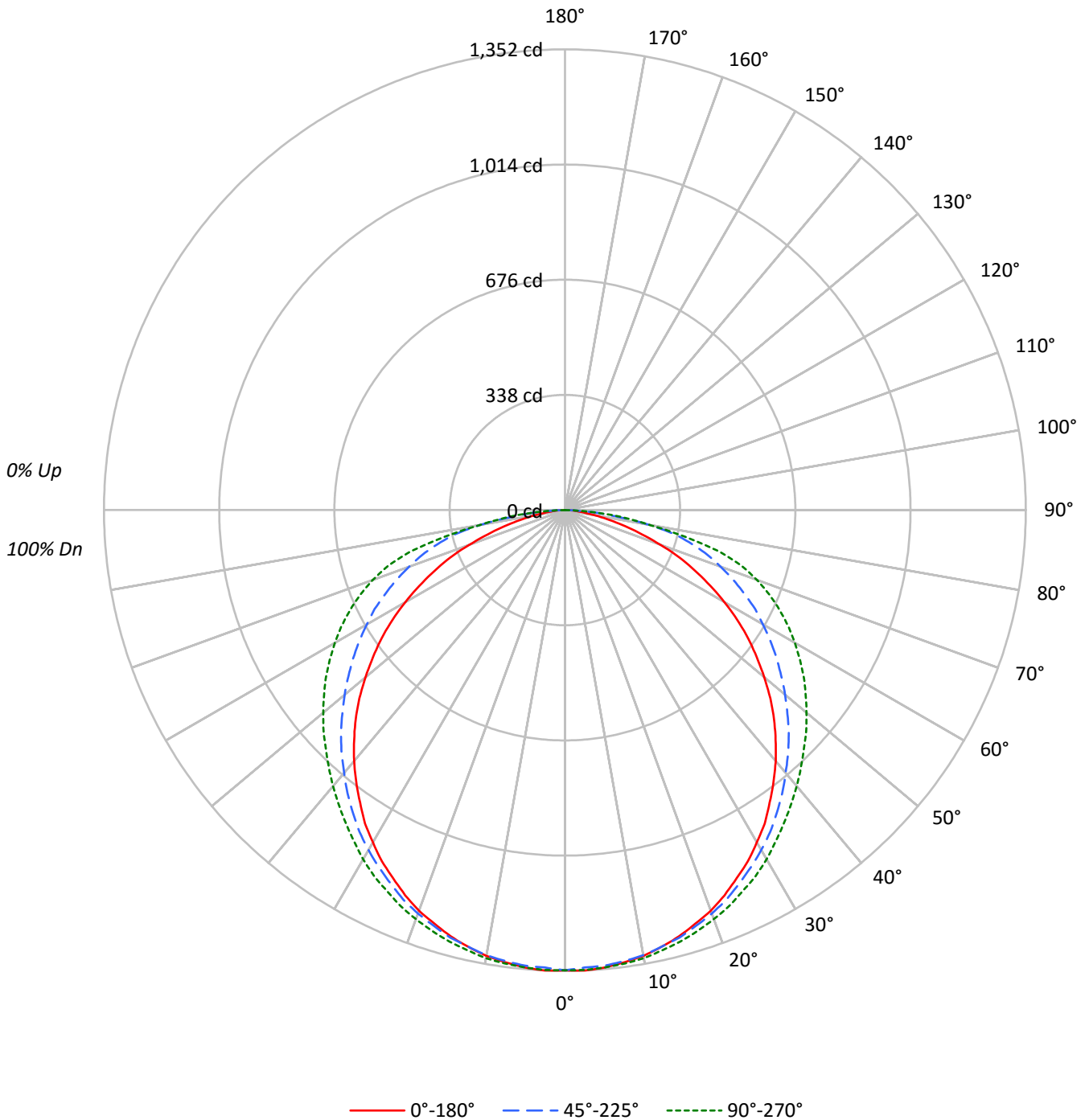
Lumens per Lamp: N/A  
Luminaire Lumens: 4163.0 lumens  
Efficiency: N/A  
Efficacy: 92.1 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.3 / 1.4  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 45.2  
Input Voltage (V): NR  
Input Current (Ain): NR  
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°	1817	1817	1817
5°	1820	1813	1820
10°	1814	1812	1824
15°	1804	1809	1826
20°	1792	1804	1829
25°	1770	1796	1832
30°	1749	1790	1839
35°	1720	1781	1841
40°	1690	1769	1858
45°	1651	1768	1887
50°	1598	1766	1937
55°	1541	1778	2007
60°	1454	1806	2096
65°	1343	1848	2214
70°	1172	1913	2358
75°	951	2011	2437
80°	702	1972	1972
85°	539	1453	1641



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	128.0	3.1
10°-20°	367.4	8.8
20°-30°	559.4	13.4
30°-40°	679.2	16.3
40°-50°	717.6	17.2
50°-60°	677.1	16.3
60°-70°	563.0	13.5
70°-80°	370.4	8.9
80°-90°	101.0	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°	1054.8	25.3
0°-40°	1734.0	41.7
0°-60°	3128.7	75.2
0°-90°	4163.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4163.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1351	1351	1351	1351	1351	
5°	1347	1347	1342	1347	1347	128
15°	1295	1297	1298	1311	1311	365
25°	1192	1199	1210	1230	1234	550
35°	1047	1060	1084	1112	1121	656
45°	868	885	929	974	992	668
55°	657	685	758	830	856	585
65°	422	471	580	666	695	417
75°	183	267	387	458	469	197
85°	35	77	94	105	106	43
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1350.7	1350.7	1350.7	1350.7	1350.7
2.5°	1352.4	1350.7	1343.7	1350.7	1350.7
5°	1347.2	1347.2	1342.0	1347.2	1347.2
7.5°	1338.5	1338.5	1335.0	1342.0	1342.0
10°	1328.0	1328.0	1326.3	1335.0	1335.0
12.5°	1312.3	1314.1	1312.3	1322.8	1322.8
15°	1294.9	1296.7	1298.4	1310.6	1310.6
17.5°	1272.3	1275.7	1279.2	1293.2	1294.9
20°	1251.3	1253.1	1260.1	1275.7	1277.5
22.5°	1223.5	1228.7	1237.4	1253.1	1258.3
25°	1192.1	1199.1	1209.5	1230.4	1233.9
27.5°	1162.5	1167.7	1181.6	1204.3	1211.3
30°	1125.9	1134.6	1152.0	1174.7	1183.4
32.5°	1091.0	1099.7	1120.6	1145.0	1152.0
35°	1047.4	1059.6	1084.0	1111.9	1120.6
37.5°	1005.6	1017.8	1047.4	1078.8	1089.3
40°	962.0	976.0	1007.4	1044.0	1057.9
42.5°	915.0	934.2	969.0	1009.1	1024.8
45°	867.9	885.4	928.9	974.2	991.7
47.5°	817.4	838.3	885.4	939.4	960.3
50°	763.4	789.5	843.5	902.8	925.4
52.5°	709.3	739.0	800.0	866.2	890.6
55°	657.0	684.9	758.1	829.6	855.7
57.5°	599.5	634.4	714.6	791.2	817.4
60°	540.3	578.6	671.0	751.2	779.0
62.5°	481.0	524.6	629.2	709.3	739.0
65°	421.8	470.6	580.4	665.8	695.4
67.5°	364.3	418.3	535.0	620.4	650.1
70°	298.0	366.0	486.2	569.9	599.5
72.5°	237.0	315.5	439.2	517.6	543.8
75°	183.0	266.7	386.9	458.4	468.8
77.5°	134.2	217.9	332.9	357.3	359.0
80°	90.6	174.3	254.5	251.0	254.5
82.5°	59.3	130.7	160.3	179.5	181.3
85°	34.9	76.7	94.1	104.6	106.3
87.5°	17.4	26.1	33.1	34.9	38.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)