

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: P310377

Luminaire Tested: **24FCZ2-65HE-UNV-L82765-RDP-CP125-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: P310377  
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: 24FCZ2-65HE-UNV-L82765-RDP-CP125-W2A-U-4500K  
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" POLYCARB 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**

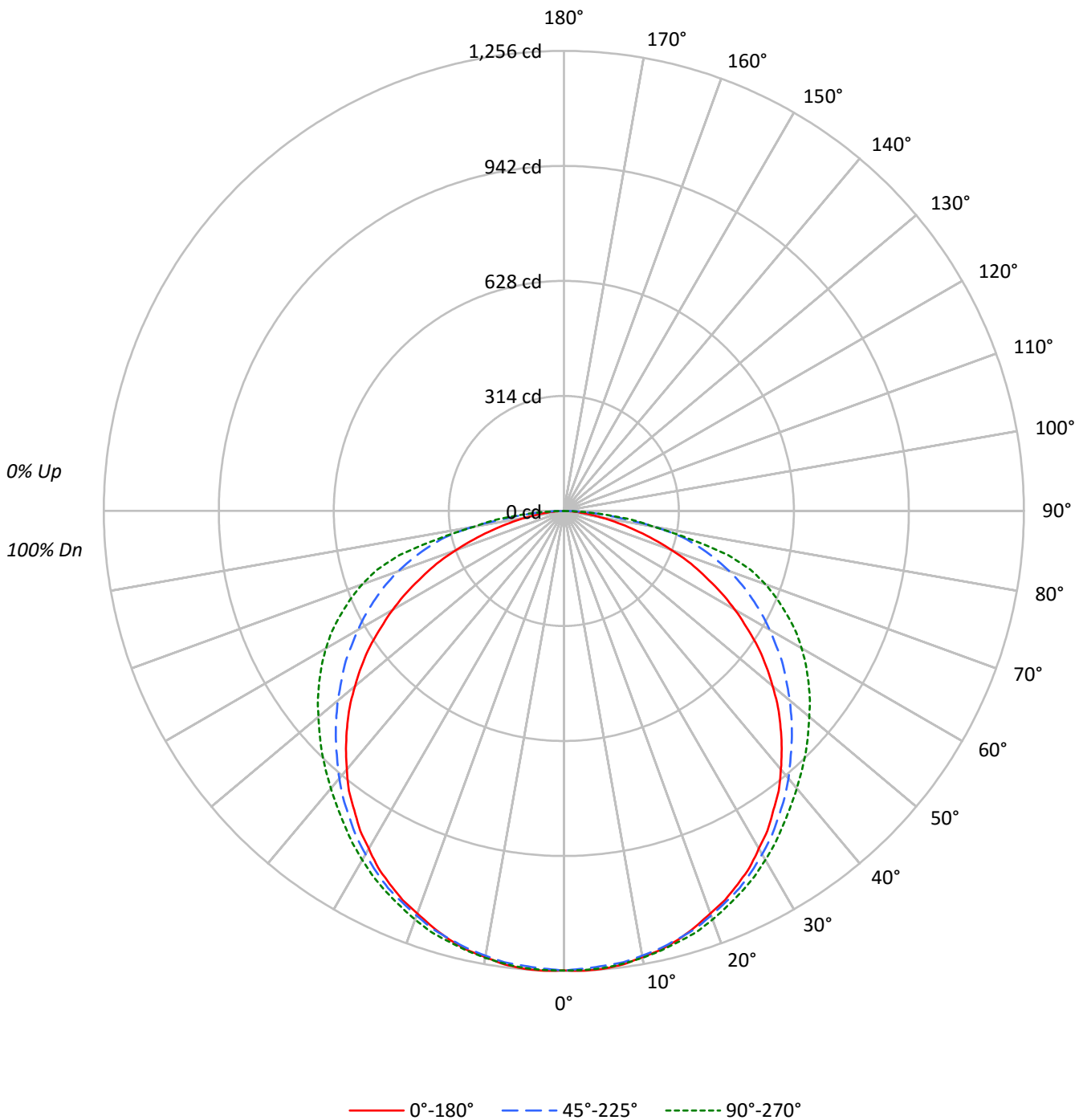
Lumens per Lamp: N/A  
Luminaire Lumens: 3989.0 lumens  
Efficiency: N/A  
Efficacy: 74.4 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 53.6  
Input Voltage (V): NR  
Input Current (A<sub>in</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	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°	1688	1688	1688
5°	1694	1684	1692
10°	1689	1684	1692
15°	1687	1684	1695
20°	1674	1683	1700
25°	1668	1686	1704
30°	1654	1682	1709
35°	1638	1677	1716
40°	1619	1675	1738
45°	1592	1675	1777
50°	1557	1686	1831
55°	1518	1713	1912
60°	1454	1746	2018
65°	1361	1808	2142
70°	1238	1891	2304
75°	1049	1995	2407
80°	828	2008	1947
85°	611	1527	1711



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	119.0	3.0
10°-20°	342.5	8.6
20°-30°	523.7	13.1
30°-40°	640.2	16.0
40°-50°	682.3	17.1
50°-60°	652.4	16.4
60°-70°	552.7	13.9
70°-80°	371.4	9.3
80°-90°	104.8	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°	985.2	24.7
0°-40°	1625.4	40.7
0°-60°	2960.1	74.2
0°-90°	3989.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3989.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1254	1254	1254	1254	1254	
5°	1254	1252	1246	1252	1252	119
15°	1211	1211	1209	1219	1217	341
25°	1124	1128	1136	1146	1148	518
35°	997	1005	1021	1041	1045	625
45°	837	851	880	918	934	646
55°	647	671	730	788	815	576
65°	427	471	568	643	673	424
75°	202	275	384	449	463	216
85°	40	81	99	107	111	49
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1254.4	1254.4	1254.4	1254.4	1254.4
2.5°	1256.4	1256.4	1250.5	1254.4	1254.4
5°	1254.4	1252.4	1246.5	1252.4	1252.4
7.5°	1248.5	1246.5	1242.6	1248.5	1246.5
10°	1236.6	1236.6	1232.7	1238.6	1238.6
12.5°	1226.7	1224.7	1222.8	1230.7	1228.7
15°	1210.9	1210.9	1208.9	1218.8	1216.8
17.5°	1191.1	1193.1	1195.1	1203.0	1205.0
20°	1169.3	1173.3	1175.3	1187.2	1187.2
22.5°	1149.6	1151.5	1155.5	1167.4	1167.4
25°	1123.8	1127.8	1135.7	1145.6	1147.6
27.5°	1098.1	1100.1	1110.0	1123.8	1125.8
30°	1064.5	1070.4	1082.3	1098.1	1100.1
32.5°	1034.8	1040.7	1054.6	1070.4	1074.4
35°	997.2	1005.1	1021.0	1040.7	1044.7
37.5°	963.6	969.5	989.3	1011.1	1017.0
40°	922.0	933.9	953.7	979.4	989.3
42.5°	880.5	892.3	916.1	949.7	961.6
45°	836.9	850.8	880.5	918.1	933.9
47.5°	793.4	809.2	842.9	886.4	904.2
50°	744.0	763.7	805.3	854.8	874.5
52.5°	696.5	720.2	765.7	821.1	846.8
55°	647.0	670.7	730.1	787.5	815.2
57.5°	591.6	623.3	688.5	753.8	783.5
60°	540.2	569.8	649.0	720.2	749.9
62.5°	484.8	524.3	609.4	684.6	714.3
65°	427.4	470.9	567.9	643.0	672.7
67.5°	375.9	423.4	526.3	601.5	631.2
70°	314.6	374.0	480.8	556.0	585.7
72.5°	257.2	322.5	433.3	506.5	534.2
75°	201.8	275.0	383.8	449.1	463.0
77.5°	150.4	227.5	332.4	360.1	350.2
80°	106.8	182.0	259.2	245.3	251.3
82.5°	69.3	138.5	160.3	182.0	188.0
85°	39.6	81.1	98.9	106.8	110.8
87.5°	17.8	29.7	39.6	39.6	37.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)