

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: P310362

Luminaire Tested: **24FCZ2-65HE-UNV-L82765-RDP-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: P310362  
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-CA08-W2A-U-5700K  
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 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**

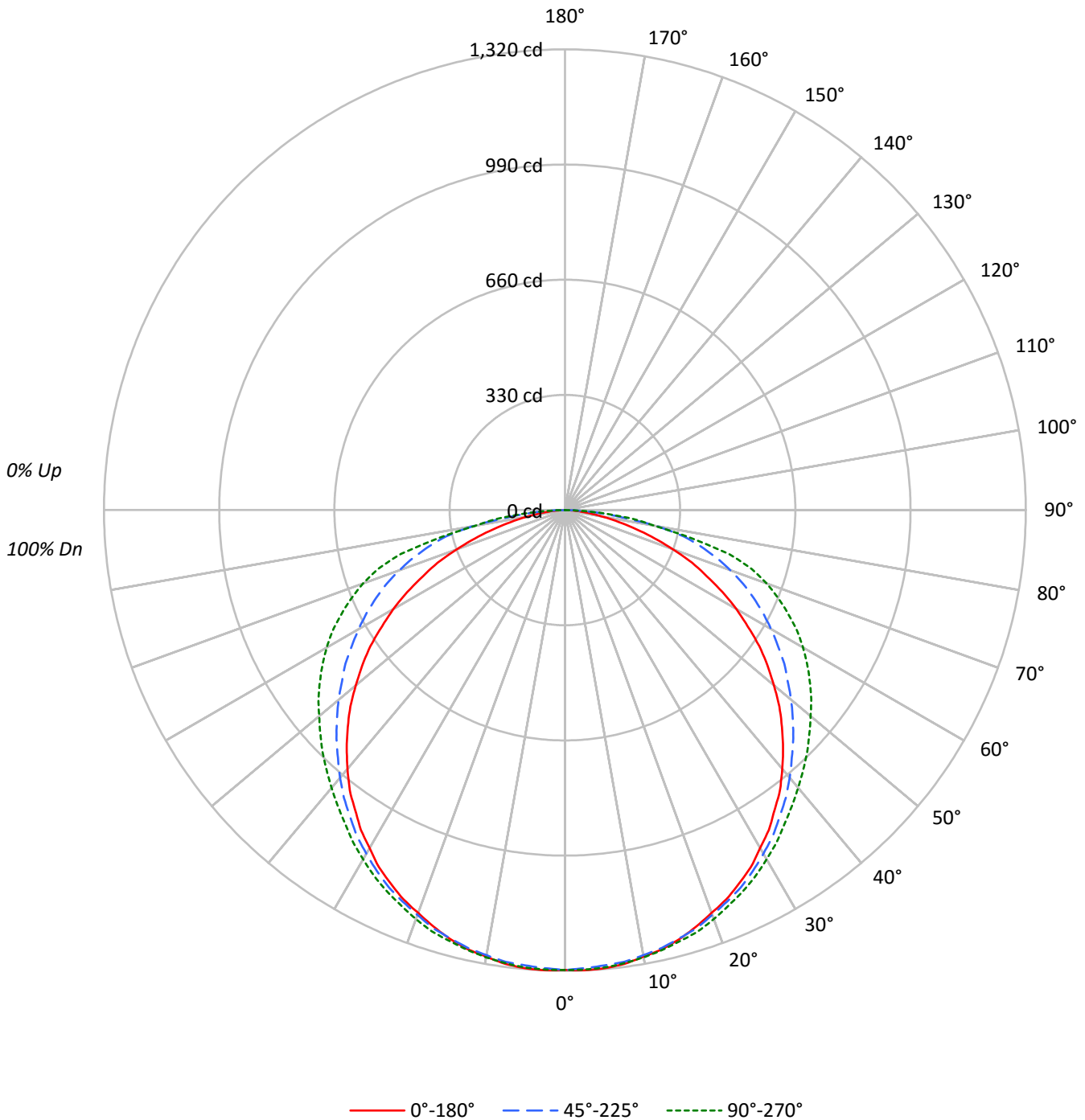
Lumens per Lamp: N/A  
Luminaire Lumens: 4190.0 lumens  
Efficiency: N/A  
Efficacy: 77.4 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 54.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
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°	1773	1773	1773
5°	1780	1768	1777
10°	1775	1769	1777
15°	1772	1769	1780
20°	1759	1768	1786
25°	1753	1771	1790
30°	1737	1766	1795
35°	1721	1761	1802
40°	1701	1759	1825
45°	1673	1760	1867
50°	1636	1771	1923
55°	1594	1799	2009
60°	1527	1834	2120
65°	1429	1899	2250
70°	1300	1987	2420
75°	1102	2096	2528
80°	869	2110	2045
85°	642	1604	1797



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	125.0	3.0
10°-20°	359.7	8.6
20°-30°	550.1	13.1
30°-40°	672.5	16.0
40°-50°	716.7	17.1
50°-60°	685.3	16.4
60°-70°	580.5	13.9
70°-80°	390.2	9.3
80°-90°	110.1	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°	1034.8	24.7
0°-40°	1707.3	40.7
0°-60°	3109.3	74.2
0°-90°	4190.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4190.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1318	1318	1318	1318	1318	
5°	1318	1316	1309	1316	1316	125
15°	1272	1272	1270	1280	1278	359
25°	1180	1185	1193	1203	1205	544
35°	1048	1056	1072	1093	1097	656
45°	879	894	925	964	981	678
55°	680	704	767	827	856	605
65°	449	495	596	675	707	446
75°	212	289	403	472	486	227
85°	42	85	104	112	116	51
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1317.6	1317.6	1317.6	1317.6	1317.6
2.5°	1319.7	1319.7	1313.5	1317.6	1317.6
5°	1317.6	1315.6	1309.3	1315.6	1315.6
7.5°	1311.4	1309.3	1305.2	1311.4	1309.3
10°	1298.9	1298.9	1294.8	1301.0	1301.0
12.5°	1288.5	1286.5	1284.4	1292.7	1290.6
15°	1271.9	1271.9	1269.8	1280.2	1278.1
17.5°	1251.1	1253.2	1255.3	1263.6	1265.7
20°	1228.3	1232.4	1234.5	1247.0	1247.0
22.5°	1207.5	1209.6	1213.7	1226.2	1226.2
25°	1180.5	1184.6	1192.9	1203.3	1205.4
27.5°	1153.5	1155.5	1165.9	1180.5	1182.5
30°	1118.1	1124.4	1136.8	1153.5	1155.5
32.5°	1086.9	1093.2	1107.7	1124.4	1128.5
35°	1047.5	1055.8	1072.4	1093.2	1097.3
37.5°	1012.1	1018.4	1039.1	1062.0	1068.2
40°	968.5	981.0	1001.7	1028.8	1039.1
42.5°	924.8	937.3	962.2	997.6	1010.0
45°	879.1	893.7	924.8	964.3	981.0
47.5°	833.4	850.0	885.4	931.1	949.8
50°	781.4	802.2	845.9	897.8	918.6
52.5°	731.6	756.5	804.3	862.5	889.5
55°	679.6	704.5	766.9	827.2	856.3
57.5°	621.4	654.7	723.2	791.8	823.0
60°	567.4	598.5	681.7	756.5	787.7
62.5°	509.2	550.7	640.1	719.1	750.3
65°	448.9	494.6	596.5	675.4	706.6
67.5°	394.9	444.8	552.8	631.8	663.0
70°	330.4	392.8	505.0	584.0	615.2
72.5°	270.2	338.8	455.1	532.0	561.1
75°	212.0	288.9	403.2	471.8	486.3
77.5°	157.9	239.0	349.2	378.2	367.9
80°	112.2	191.2	272.3	257.7	263.9
82.5°	72.7	145.5	168.3	191.2	197.4
85°	41.6	85.2	103.9	112.2	116.4
87.5°	18.7	31.2	41.6	41.6	39.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)