

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: P313715

Luminaire Tested: **24FCZ2-65HE-UNV-L83050-RDP-CA08-W2A-U-3000K**

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: P313715  
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-L83050-RDP-CA08-W2A-U-3000K  
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.08" ACRYLIC SHEET  
Light Source: (336) 3000K 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**

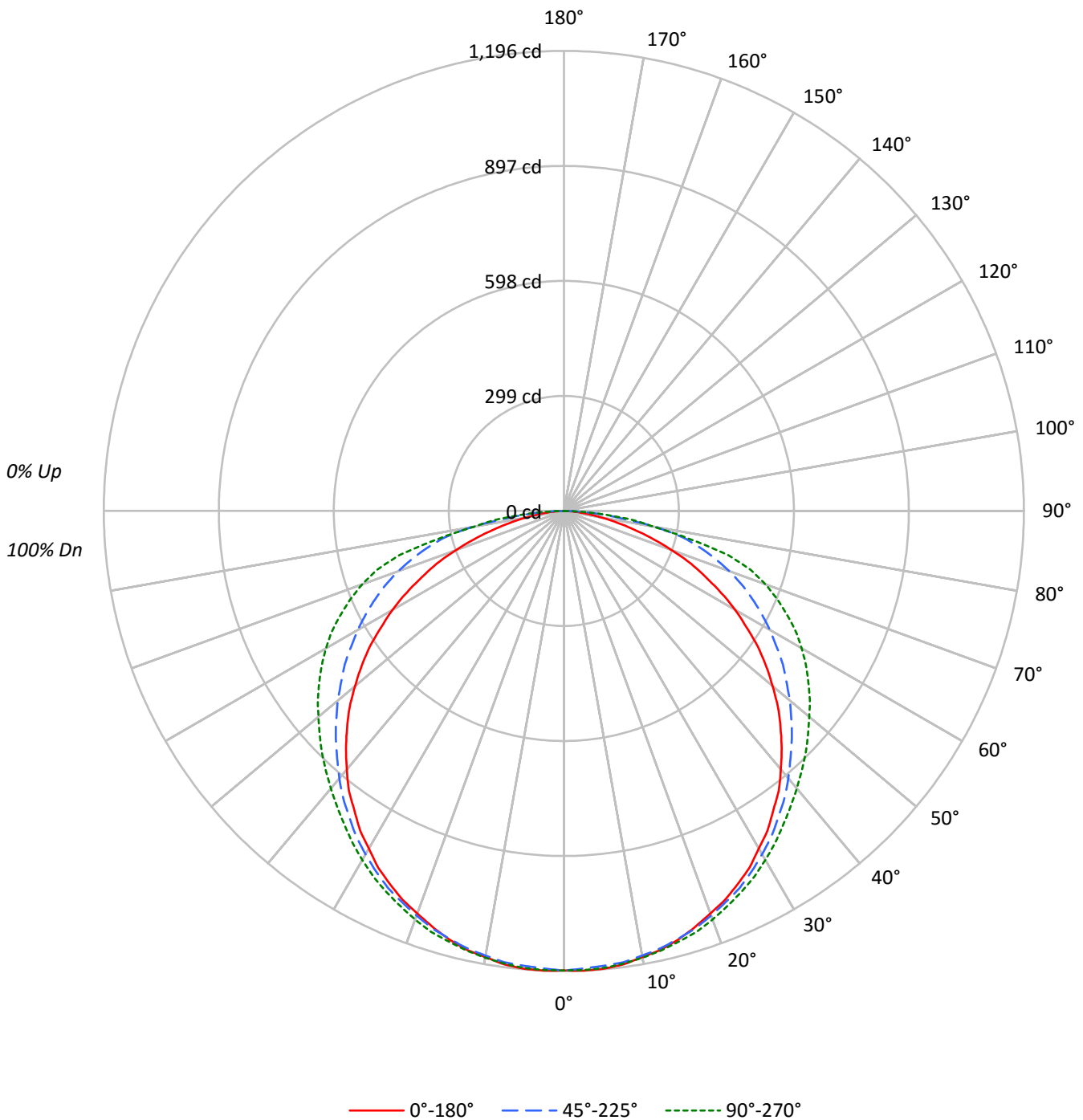
Lumens per Lamp: N/A  
Luminaire Lumens: 3798.0 lumens  
Efficiency: N/A  
Efficacy: 72.3 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 52.5  
Input Voltage (V): NR  
Input Current (A<sub>in</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°	1607	1607	1607
5°	1613	1603	1611
10°	1609	1603	1611
15°	1606	1603	1614
20°	1594	1602	1618
25°	1589	1605	1622
30°	1575	1601	1627
35°	1560	1597	1634
40°	1542	1595	1654
45°	1516	1595	1692
50°	1483	1605	1743
55°	1445	1631	1821
60°	1384	1663	1921
65°	1295	1721	2039
70°	1178	1801	2194
75°	999	1900	2292
80°	788	1912	1853
85°	582	1454	1629



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	113.3	3.0
10°-20°	326.1	8.6
20°-30°	498.6	13.1
30°-40°	609.6	16.0
40°-50°	649.7	17.1
50°-60°	621.2	16.4
60°-70°	526.2	13.9
70°-80°	353.7	9.3
80°-90°	99.8	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°	938.0	24.7
0°-40°	1547.5	40.7
0°-60°	2818.4	74.2
0°-90°	3798.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3798.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1194	1194	1194	1194	1194	
5°	1194	1192	1187	1192	1192	113
15°	1153	1153	1151	1160	1159	325
25°	1070	1074	1081	1091	1093	493
35°	950	957	972	991	995	595
45°	797	810	838	874	889	615
55°	616	639	695	750	776	549
65°	407	448	541	612	640	404
75°	192	262	366	428	441	206
85°	38	77	94	102	106	47
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1194.4	1194.4	1194.4	1194.4	1194.4
2.5°	1196.2	1196.2	1190.6	1194.4	1194.4
5°	1194.4	1192.5	1186.8	1192.5	1192.5
7.5°	1188.7	1186.8	1183.1	1188.7	1186.8
10°	1177.4	1177.4	1173.6	1179.3	1179.3
12.5°	1168.0	1166.1	1164.2	1171.8	1169.9
15°	1152.9	1152.9	1151.0	1160.5	1158.6
17.5°	1134.1	1136.0	1137.8	1145.4	1147.3
20°	1113.4	1117.1	1119.0	1130.3	1130.3
22.5°	1094.5	1096.4	1100.2	1111.5	1111.5
25°	1070.0	1073.8	1081.3	1090.8	1092.6
27.5°	1045.5	1047.4	1056.8	1070.0	1071.9
30°	1013.5	1019.2	1030.5	1045.5	1047.4
32.5°	985.3	990.9	1004.1	1019.2	1022.9
35°	949.5	957.0	972.1	990.9	994.7
37.5°	917.4	923.1	941.9	962.6	968.3
40°	877.9	889.2	908.0	932.5	941.9
42.5°	838.3	849.6	872.2	904.2	915.6
45°	796.9	810.1	838.3	874.1	889.2
47.5°	755.4	770.5	802.5	844.0	860.9
50°	708.3	727.2	766.7	813.8	832.7
52.5°	663.1	685.7	729.1	781.8	806.3
55°	616.0	638.6	695.1	749.8	776.1
57.5°	563.3	593.4	655.6	717.7	746.0
60°	514.3	542.5	617.9	685.7	714.0
62.5°	461.5	499.2	580.2	651.8	680.1
65°	406.9	448.4	540.7	612.3	640.5
67.5°	357.9	403.1	501.1	572.7	600.9
70°	299.5	356.0	457.8	529.4	557.6
72.5°	244.9	307.1	412.6	482.3	508.6
75°	192.2	261.9	365.5	427.6	440.8
77.5°	143.2	216.6	316.5	342.9	333.4
80°	101.7	173.3	246.8	233.6	239.2
82.5°	65.9	131.9	152.6	173.3	179.0
85°	37.7	77.2	94.2	101.7	105.5
87.5°	17.0	28.3	37.7	37.7	35.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)