

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: P310361

Luminaire Tested: **24FCZ2-65HE-UNV-L82765-RDP-CA08-W2A-U-5500K**

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: P310361  
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-5500K  
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.08" ACRYLIC SHEET  
Light Source: (336) 5500K 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**

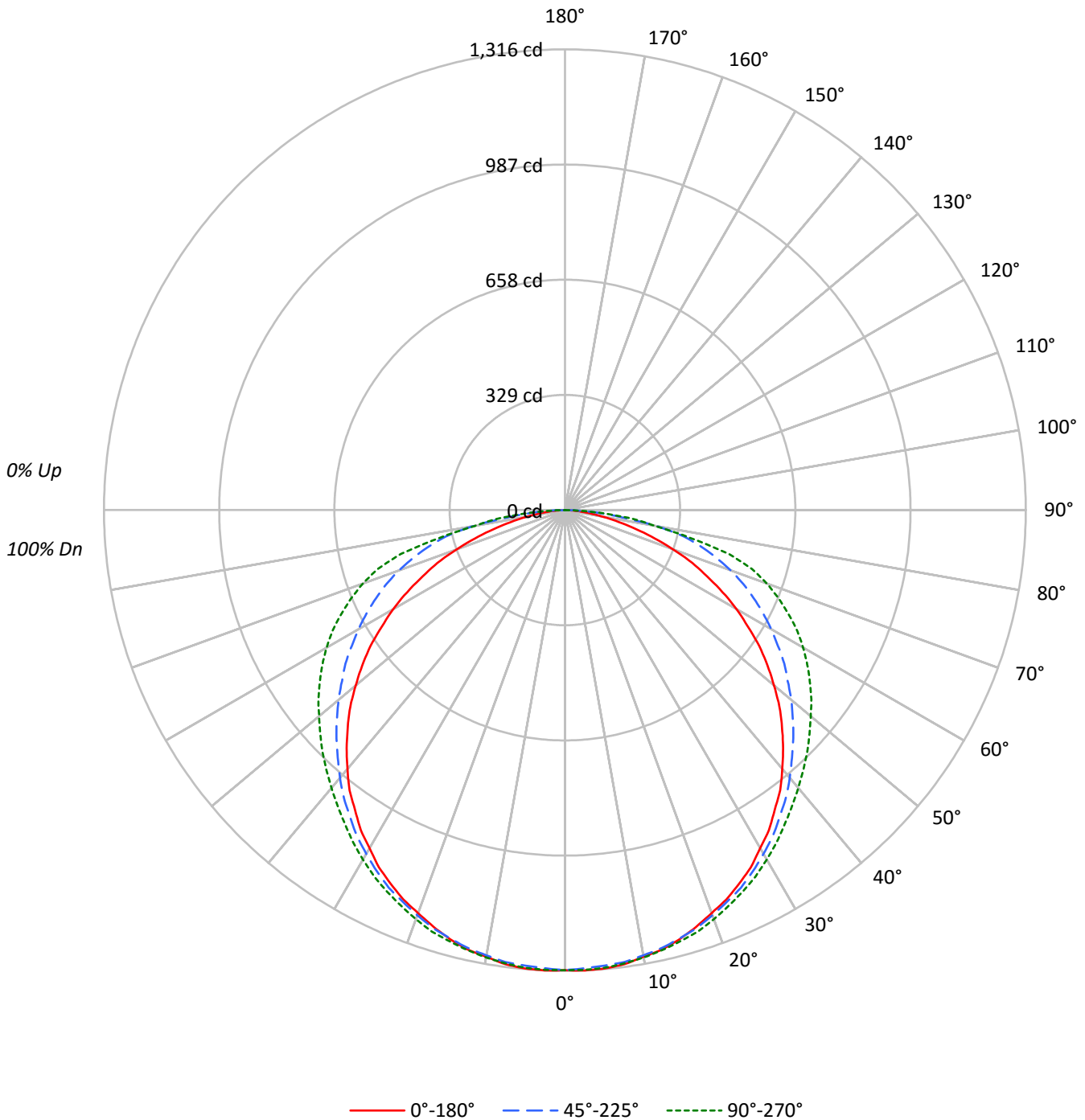
Lumens per Lamp: N/A  
Luminaire Lumens: 4179.0 lumens  
Efficiency: N/A  
Efficacy: 77.2 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 54.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
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°	1768	1768	1768
5°	1775	1764	1772
10°	1770	1764	1773
15°	1767	1764	1776
20°	1754	1763	1781
25°	1748	1766	1785
30°	1733	1762	1791
35°	1716	1757	1798
40°	1697	1755	1820
45°	1668	1755	1862
50°	1631	1766	1918
55°	1590	1794	2003
60°	1523	1830	2114
65°	1425	1894	2244
70°	1297	1982	2414
75°	1099	2090	2521
80°	867	2104	2039
85°	641	1599	1792



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	124.7	3.0
10°-20°	358.8	8.6
20°-30°	548.6	13.1
30°-40°	670.7	16.0
40°-50°	714.8	17.1
50°-60°	683.5	16.4
60°-70°	579.0	13.9
70°-80°	389.1	9.3
80°-90°	109.8	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°	1032.1	24.7
0°-40°	1702.8	40.7
0°-60°	3101.1	74.2
0°-90°	4179.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4179.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1314	1314	1314	1314	1314	
5°	1314	1312	1306	1312	1312	125
15°	1269	1269	1266	1277	1275	358
25°	1177	1182	1190	1200	1202	543
35°	1045	1053	1070	1090	1094	654
45°	877	891	922	962	978	676
55°	678	703	765	825	854	604
65°	448	493	595	674	705	444
75°	211	288	402	470	485	226
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°	1314.2	1314.2	1314.2	1314.2	1314.2
2.5°	1316.2	1316.2	1310.0	1314.2	1314.2
5°	1314.2	1312.1	1305.9	1312.1	1312.1
7.5°	1308.0	1305.9	1301.7	1308.0	1305.9
10°	1295.5	1295.5	1291.4	1297.6	1297.6
12.5°	1285.2	1283.1	1281.0	1289.3	1287.2
15°	1268.6	1268.6	1266.5	1276.9	1274.8
17.5°	1247.8	1249.9	1252.0	1260.3	1262.4
20°	1225.0	1229.2	1231.3	1243.7	1243.7
22.5°	1204.3	1206.4	1210.5	1223.0	1223.0
25°	1177.4	1181.5	1189.8	1200.2	1202.2
27.5°	1150.4	1152.5	1162.9	1177.4	1179.4
30°	1115.2	1121.4	1133.8	1150.4	1152.5
32.5°	1084.1	1090.3	1104.8	1121.4	1125.5
35°	1044.7	1053.0	1069.6	1090.3	1094.5
37.5°	1009.5	1015.7	1036.4	1059.2	1065.4
40°	965.9	978.4	999.1	1026.1	1036.4
42.5°	922.4	934.8	959.7	995.0	1007.4
45°	876.8	891.3	922.4	961.8	978.4
47.5°	831.2	847.8	883.0	928.6	947.3
50°	779.4	800.1	843.6	895.5	916.2
52.5°	729.6	754.5	802.2	860.2	887.2
55°	677.8	702.7	764.9	825.0	854.0
57.5°	619.8	652.9	721.3	789.7	820.8
60°	565.9	597.0	679.9	754.5	785.6
62.5°	507.8	549.3	638.4	717.2	748.3
65°	447.7	493.3	594.9	673.7	704.8
67.5°	393.8	443.6	551.4	630.1	661.2
70°	329.6	391.8	503.7	582.5	613.6
72.5°	269.5	337.9	454.0	530.6	559.7
75°	211.4	288.1	402.1	470.5	485.0
77.5°	157.5	238.4	348.2	377.3	366.9
80°	111.9	190.7	271.5	257.0	263.2
82.5°	72.5	145.1	167.9	190.7	196.9
85°	41.5	85.0	103.6	111.9	116.1
87.5°	18.7	31.1	41.5	41.5	39.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)