

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: P310367

Luminaire Tested: **24FCZ2-65HE-UNV-L82765-RDP-CA125-W2A-U-4000K**

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: P310367  
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-CA125-W2A-U-4000K  
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" ACRYLIC SHEET  
Light Source: (336) 4000K 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**

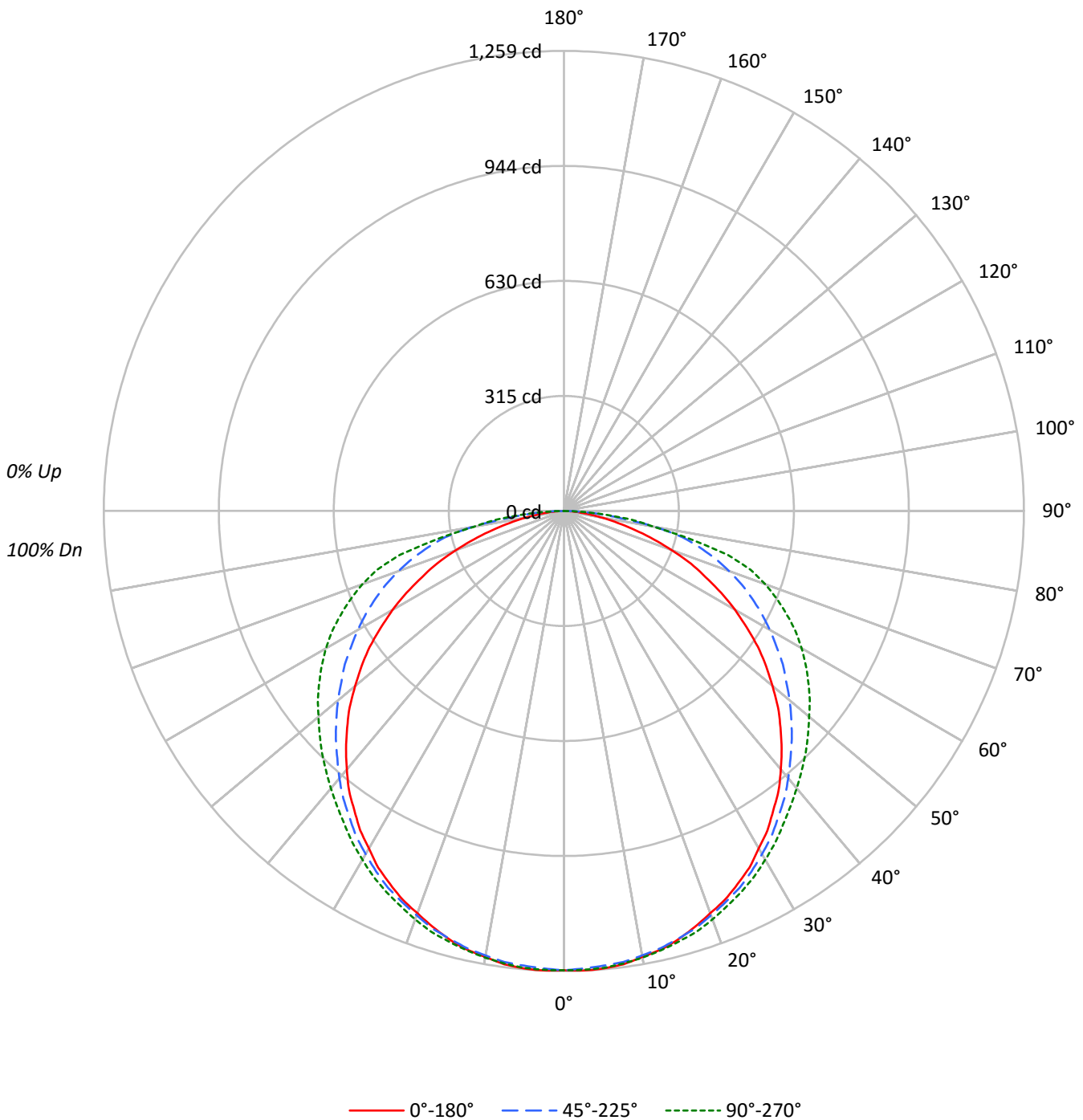
Lumens per Lamp: N/A  
Luminaire Lumens: 3997.0 lumens  
Efficiency: N/A  
Efficacy: 75.1 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 53.2  
Input Voltage (V): NR  
Input Current (Ain): NR  
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	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°	1691	1691	1691
5°	1698	1687	1695
10°	1693	1687	1696
15°	1690	1687	1698
20°	1678	1686	1703
25°	1672	1689	1707
30°	1657	1685	1713
35°	1641	1680	1719
40°	1623	1678	1741
45°	1596	1679	1781
50°	1560	1689	1834
55°	1521	1716	1916
60°	1456	1750	2022
65°	1363	1812	2146
70°	1240	1895	2308
75°	1051	1999	2412
80°	830	2012	1951
85°	613	1530	1714



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	119.2	3.0
10°-20°	343.2	8.6
20°-30°	524.8	13.1
30°-40°	641.5	16.0
40°-50°	683.7	17.1
50°-60°	653.7	16.4
60°-70°	553.8	13.9
70°-80°	372.2	9.3
80°-90°	105.0	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°	987.1	24.7
0°-40°	1628.6	40.7
0°-60°	2966.1	74.2
0°-90°	3997.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3997.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1257	1257	1257	1257	1257	
5°	1257	1255	1249	1255	1255	119
15°	1213	1213	1211	1221	1219	342
25°	1126	1130	1138	1148	1150	519
35°	999	1007	1023	1043	1047	626
45°	839	852	882	920	936	647
55°	648	672	732	789	817	577
65°	428	472	569	644	674	425
75°	202	276	385	450	464	217
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°	1256.9	1256.9	1256.9	1256.9	1256.9
2.5°	1258.9	1258.9	1253.0	1256.9	1256.9
5°	1256.9	1255.0	1249.0	1255.0	1255.0
7.5°	1251.0	1249.0	1245.0	1251.0	1249.0
10°	1239.1	1239.1	1235.1	1241.1	1241.1
12.5°	1229.2	1227.2	1225.2	1233.2	1231.2
15°	1213.3	1213.3	1211.3	1221.3	1219.3
17.5°	1193.5	1195.5	1197.5	1205.4	1207.4
20°	1171.7	1175.7	1177.6	1189.5	1189.5
22.5°	1151.9	1153.8	1157.8	1169.7	1169.7
25°	1126.1	1130.1	1138.0	1147.9	1149.9
27.5°	1100.3	1102.3	1112.2	1126.1	1128.1
30°	1066.6	1072.6	1084.5	1100.3	1102.3
32.5°	1036.9	1042.8	1056.7	1072.6	1076.5
35°	999.2	1007.1	1023.0	1042.8	1046.8
37.5°	965.5	971.5	991.3	1013.1	1019.0
40°	923.9	935.8	955.6	981.4	991.3
42.5°	882.2	894.1	917.9	951.6	963.5
45°	838.6	852.5	882.2	919.9	935.8
47.5°	795.0	810.9	844.6	888.2	906.0
50°	745.4	765.3	806.9	856.5	876.3
52.5°	697.9	721.7	767.3	822.8	848.5
55°	648.3	672.1	731.6	789.1	816.8
57.5°	592.8	624.5	689.9	755.4	785.1
60°	541.2	571.0	650.3	721.7	751.4
62.5°	485.7	525.4	610.6	686.0	715.7
65°	428.2	471.8	569.0	644.3	674.1
67.5°	376.7	424.3	527.4	602.7	632.4
70°	315.2	374.7	481.8	557.1	586.8
72.5°	257.7	323.2	434.2	507.5	535.3
75°	202.2	275.6	384.6	450.0	463.9
77.5°	150.7	228.0	333.1	360.8	350.9
80°	107.1	182.4	259.7	245.8	251.8
82.5°	69.4	138.8	160.6	182.4	188.3
85°	39.7	81.3	99.1	107.1	111.0
87.5°	17.8	29.7	39.7	39.7	37.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)