

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: P311281

Luminaire Tested: **24FCZ2-35HE-UNV-L82765-S-CP125-W2A-U-6500K**

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: P311281  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-1)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: 24FCZ2-35HE-UNV-L82765-S-CP125-W2A-U-6500K  
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS, 0.125" POLYCARB SHEET  
Light Source: (336) 6500K 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**

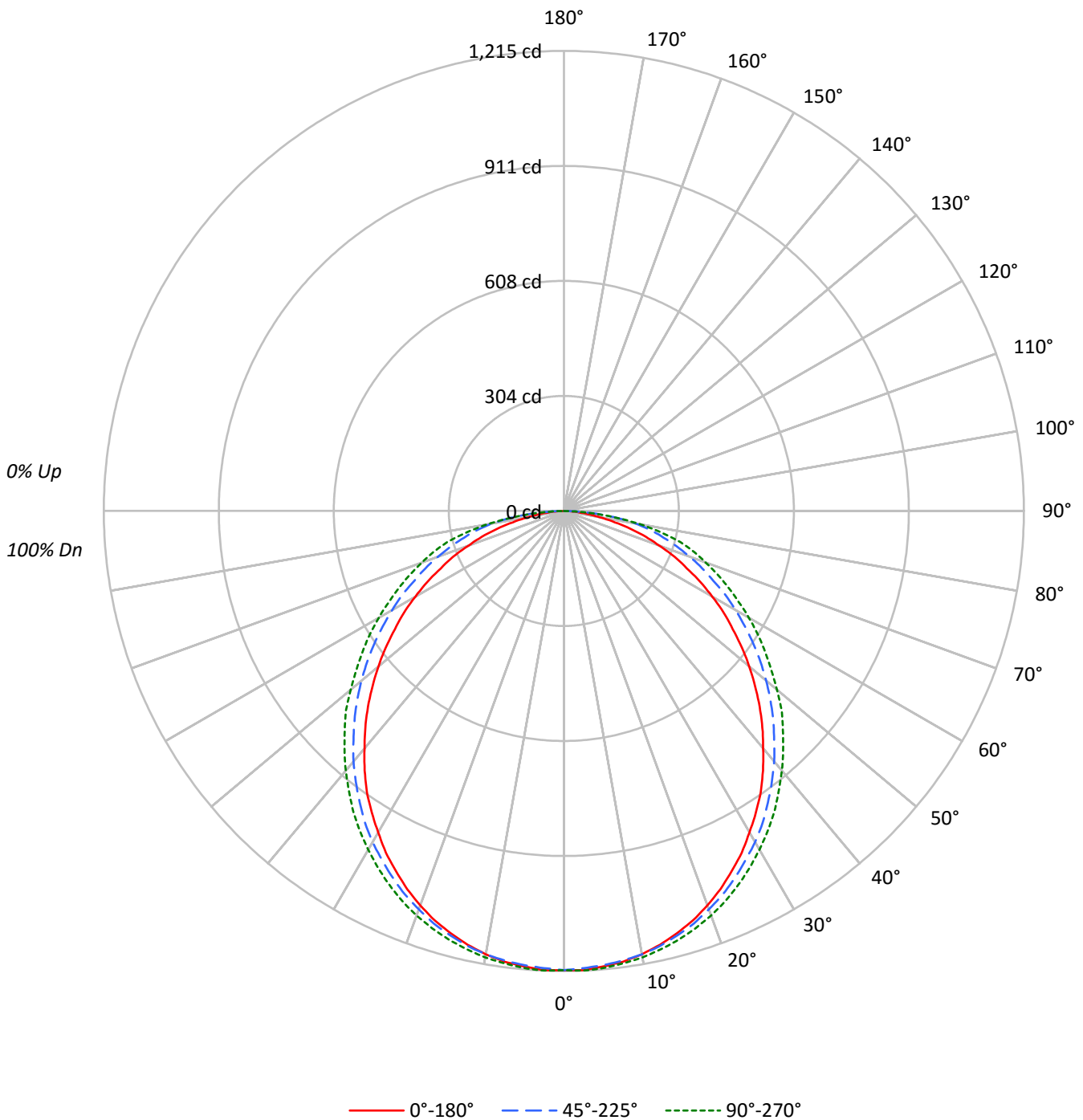
Lumens per Lamp: N/A  
Luminaire Lumens: 3452.0 lumens  
Efficiency: N/A  
Efficacy: 126.9 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 27.2  
Input Voltage (V): NR  
Input Current (A<sub>in</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	99	95	106	101	97	93	97	93	90	93	90	88	89	87	85	83
2	98	90	83	77	96	88	81	76	84	79	74	81	76	72	78	74	71	69
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42
6	70	56	47	40	68	55	47	40	53	46	40	52	45	40	50	44	39	37
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	1632	1632	1632
5°	1630	1626	1636
10°	1624	1624	1636
15°	1608	1616	1633
20°	1587	1603	1628
25°	1558	1587	1618
30°	1523	1569	1605
35°	1489	1543	1592
40°	1439	1518	1573
45°	1392	1488	1556
50°	1338	1460	1538
55°	1278	1433	1523
60°	1218	1410	1520
65°	1141	1386	1529
70°	1057	1393	1570
75°	946	1419	1659
80°	765	1504	1623
85°	576	1320	1286



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	114.8	3.3
10°-20°	328.0	9.5
20°-30°	493.1	14.3
30°-40°	587.4	17.0
40°-50°	601.2	17.4
50°-60°	541.2	15.7
60°-70°	425.0	12.3
70°-80°	275.9	8.0
80°-90°	85.3	2.5
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°	936.0	27.1
0°-40°	1523.4	44.1
0°-60°	2665.8	77.2
0°-90°	3452.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3452.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1213	1213	1213	1213	1213	
5°	1207	1209	1204	1210	1212	115
15°	1155	1158	1160	1170	1172	326
25°	1049	1058	1069	1087	1090	483
35°	907	918	940	963	969	566
45°	731	749	782	811	818	564
55°	545	569	611	642	649	489
65°	358	386	435	472	480	357
75°	182	217	273	310	319	193
85°	37	69	86	83	83	45
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1212.7	1212.7	1212.7	1212.7	1212.7
2.5°	1213.8	1213.8	1208.3	1213.8	1214.9
5°	1207.2	1209.4	1203.9	1210.5	1211.6
7.5°	1200.6	1200.6	1197.4	1203.9	1205.0
10°	1188.6	1189.7	1188.6	1196.3	1197.4
12.5°	1173.2	1175.4	1176.5	1184.2	1185.3
15°	1154.6	1157.9	1160.1	1169.9	1172.1
17.5°	1133.8	1137.1	1142.5	1153.5	1155.7
20°	1108.5	1112.9	1119.5	1133.8	1137.1
22.5°	1081.1	1085.5	1096.5	1109.6	1115.1
25°	1049.3	1058.1	1069.1	1086.6	1089.9
27.5°	1017.5	1025.2	1039.5	1058.1	1062.5
30°	980.3	992.3	1009.9	1028.5	1032.9
32.5°	944.1	956.1	977.0	996.7	1002.2
35°	906.8	917.8	939.7	962.7	969.3
37.5°	864.0	878.3	902.4	925.4	932.0
40°	819.1	836.6	864.0	888.2	895.8
42.5°	776.3	795.0	822.4	848.7	857.4
45°	731.4	748.9	781.8	811.4	818.0
47.5°	685.3	705.0	740.1	769.7	780.7
50°	639.2	660.1	697.4	728.1	734.6
52.5°	593.2	615.1	654.6	687.5	690.8
55°	545.0	569.1	610.7	642.5	649.1
57.5°	501.1	521.9	566.9	599.8	607.5
60°	452.8	475.9	524.1	554.8	564.7
62.5°	406.8	430.9	481.4	512.1	520.8
65°	358.5	386.0	435.3	471.5	480.3
67.5°	316.9	343.2	395.8	430.9	439.7
70°	268.6	298.2	354.2	390.3	399.1
72.5°	227.0	257.7	313.6	348.7	361.8
75°	182.0	217.1	273.0	310.3	319.1
77.5°	138.2	178.7	235.7	264.3	264.3
80°	98.7	141.4	194.1	207.2	209.4
82.5°	64.7	106.4	143.6	142.5	142.5
85°	37.3	69.1	85.5	83.3	83.3
87.5°	14.3	28.5	30.7	30.7	29.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)