

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: P310364

Luminaire Tested: **24FCZ2-65HE-UNV-L82765-RDP-CA125-W2A-U-2700K**

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: P310364
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-2700K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" ACRYLIC SHEET
Light Source: (336) 2700K 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: 3674.0 lumens
Efficiency: N/A
Efficacy: 69.8 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

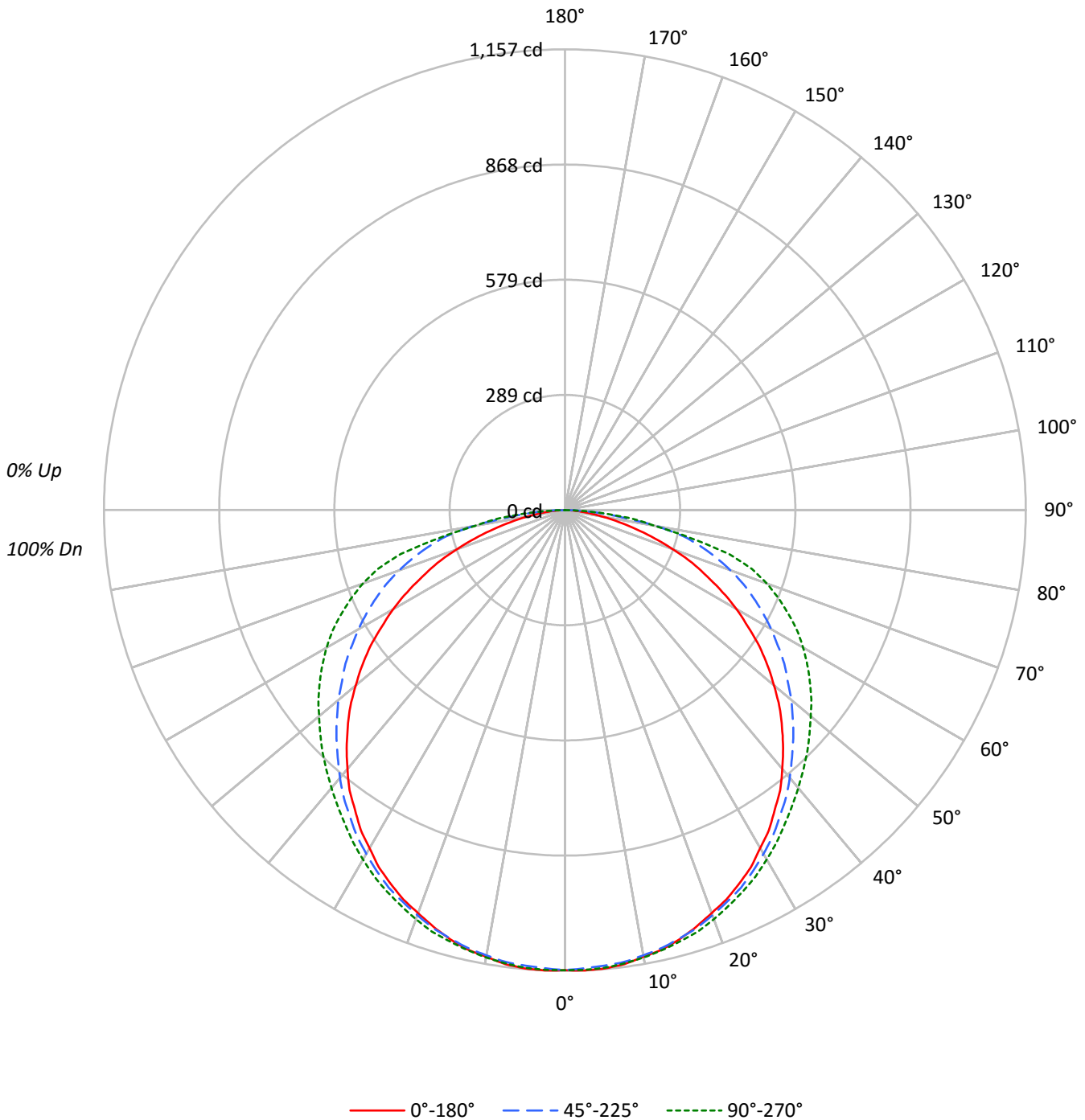
Input Watts (W): 52.6
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1555	1555	1555
5°	1561	1551	1558
10°	1556	1551	1559
15°	1554	1551	1561
20°	1542	1550	1566
25°	1537	1553	1569
30°	1523	1549	1574
35°	1509	1544	1580
40°	1492	1543	1600
45°	1467	1543	1637
50°	1434	1553	1686
55°	1398	1577	1761
60°	1339	1608	1859
65°	1253	1665	1973
70°	1140	1742	2122
75°	966	1838	2217
80°	762	1850	1793
85°	562	1406	1576



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	109.6	3.0
10°-20°	315.4	8.6
20°-30°	482.3	13.1
30°-40°	589.7	16.0
40°-50°	628.5	17.1
50°-60°	600.9	16.4
60°-70°	509.0	13.9
70°-80°	342.1	9.3
80°-90°	96.5	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°	907.4	24.7
0°-40°	1497.0	40.7
0°-60°	2726.4	74.2
0°-90°	3674.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3674.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1155	1155	1155	1155	1155	
5°	1155	1154	1148	1154	1154	110
15°	1115	1115	1114	1123	1121	314
25°	1035	1039	1046	1055	1057	477
35°	918	926	940	959	962	575
45°	771	784	811	846	860	595
55°	596	618	672	725	751	531
65°	394	434	523	592	620	391
75°	186	253	354	414	426	199
85°	36	75	91	98	102	45
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1155.4	1155.4	1155.4	1155.4	1155.4
2.5°	1157.2	1157.2	1151.7	1155.4	1155.4
5°	1155.4	1153.5	1148.1	1153.5	1153.5
7.5°	1149.9	1148.1	1144.4	1149.9	1148.1
10°	1139.0	1139.0	1135.3	1140.8	1140.8
12.5°	1129.9	1128.0	1126.2	1133.5	1131.7
15°	1115.3	1115.3	1113.5	1122.6	1120.7
17.5°	1097.1	1098.9	1100.7	1108.0	1109.8
20°	1077.0	1080.7	1082.5	1093.4	1093.4
22.5°	1058.8	1060.6	1064.3	1075.2	1075.2
25°	1035.1	1038.7	1046.0	1055.1	1057.0
27.5°	1011.4	1013.2	1022.3	1035.1	1036.9
30°	980.4	985.9	996.8	1011.4	1013.2
32.5°	953.1	958.6	971.3	985.9	989.5
35°	918.5	925.8	940.3	958.6	962.2
37.5°	887.5	893.0	911.2	931.2	936.7
40°	849.2	860.1	878.4	902.1	911.2
42.5°	810.9	821.9	843.7	874.7	885.7
45°	770.9	783.6	810.9	845.6	860.1
47.5°	730.8	745.3	776.3	816.4	832.8
50°	685.2	703.4	741.7	787.3	805.5
52.5°	641.5	663.3	705.2	756.3	780.0
55°	595.9	617.8	672.4	725.3	750.8
57.5°	544.9	574.0	634.2	694.3	721.6
60°	497.5	524.8	597.7	663.3	690.7
62.5°	446.5	482.9	561.3	630.5	657.9
65°	393.6	433.7	523.0	592.3	619.6
67.5°	346.2	390.0	484.7	554.0	581.3
70°	289.8	344.4	442.8	512.1	539.4
72.5°	236.9	297.0	399.1	466.5	492.0
75°	185.9	253.3	353.5	413.7	426.4
77.5°	138.5	209.6	306.2	331.7	322.6
80°	98.4	167.7	238.7	226.0	231.4
82.5°	63.8	127.6	147.6	167.7	173.1
85°	36.4	74.7	91.1	98.4	102.1
87.5°	16.4	27.3	36.4	36.4	34.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)