

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: P313720

Luminaire Tested: **24FCZ2-65HE-UNV-L83050-RDP-CA125-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: P313720
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-CA125-W2A-U-3000K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" 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: 3784.0 lumens
Efficiency: N/A
Efficacy: 72.1 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

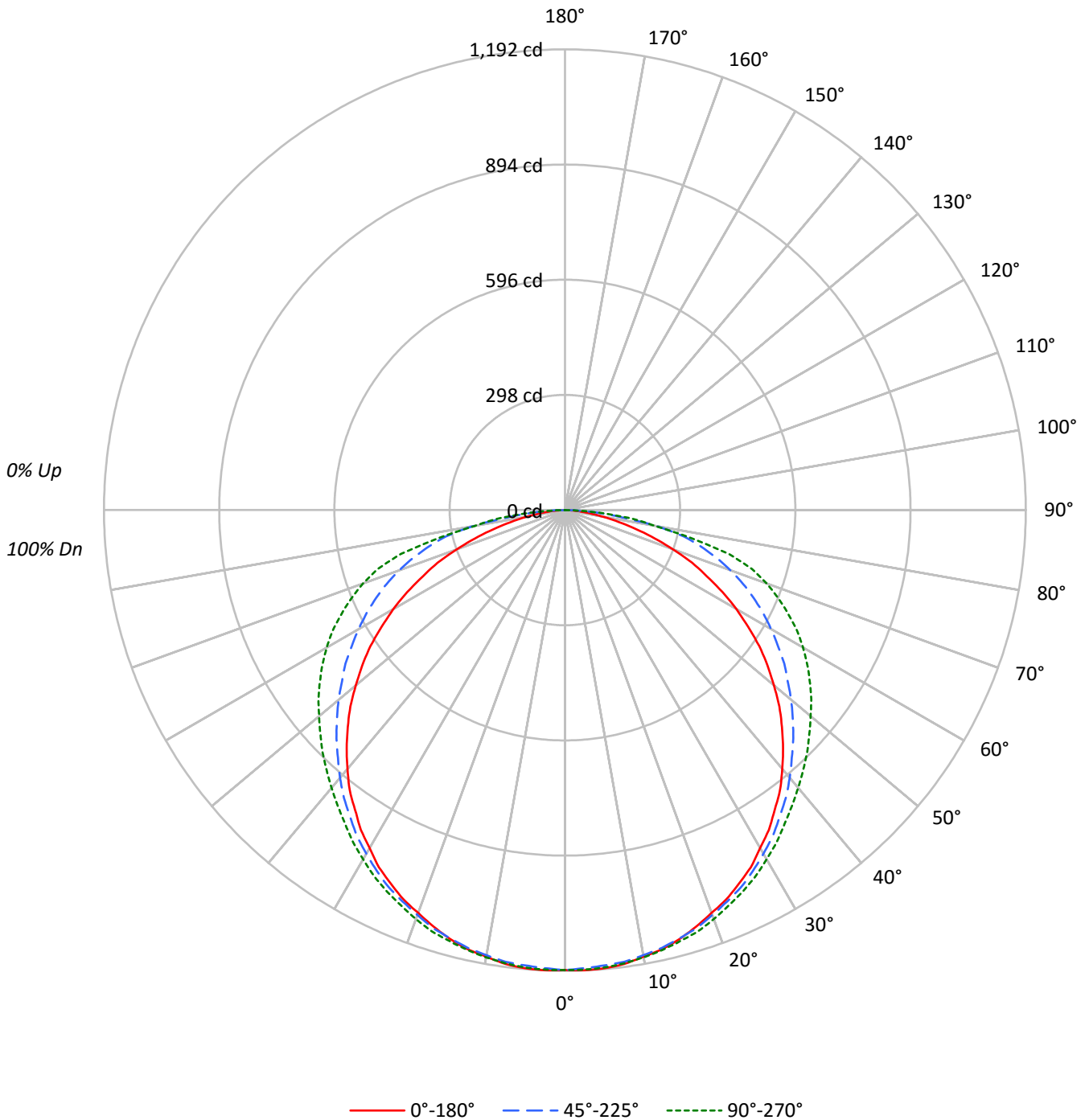
Input Watts (W): 52.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1601	1601	1601
5°	1607	1597	1605
10°	1603	1598	1605
15°	1600	1597	1608
20°	1588	1596	1612
25°	1583	1599	1616
30°	1569	1595	1621
35°	1554	1591	1628
40°	1536	1589	1648
45°	1511	1589	1686
50°	1477	1599	1737
55°	1440	1625	1814
60°	1379	1657	1914
65°	1291	1715	2032
70°	1174	1794	2186
75°	995	1893	2283
80°	786	1905	1847
85°	579	1448	1623



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	112.9	3.0
10°-20°	324.9	8.6
20°-30°	496.8	13.1
30°-40°	607.3	16.0
40°-50°	647.3	17.1
50°-60°	618.9	16.4
60°-70°	524.3	13.9
70°-80°	352.3	9.3
80°-90°	99.4	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°	934.5	24.7
0°-40°	1541.9	40.7
0°-60°	2808.0	74.2
0°-90°	3784.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3784.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1190	1190	1190	1190	1190	
5°	1190	1188	1182	1188	1188	113
15°	1149	1149	1147	1156	1154	324
25°	1066	1070	1077	1087	1089	491
35°	946	954	968	987	991	593
45°	794	807	835	871	886	612
55°	614	636	693	747	773	547
65°	405	447	539	610	638	402
75°	191	261	364	426	439	205
85°	38	77	94	101	105	46
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1190.0	1190.0	1190.0	1190.0	1190.0
2.5°	1191.8	1191.8	1186.2	1190.0	1190.0
5°	1190.0	1188.1	1182.5	1188.1	1188.1
7.5°	1184.3	1182.5	1178.7	1184.3	1182.5
10°	1173.1	1173.1	1169.3	1174.9	1174.9
12.5°	1163.7	1161.8	1159.9	1167.4	1165.6
15°	1148.7	1148.7	1146.8	1156.2	1154.3
17.5°	1129.9	1131.8	1133.7	1141.2	1143.0
20°	1109.3	1113.0	1114.9	1126.1	1126.1
22.5°	1090.5	1092.4	1096.1	1107.4	1107.4
25°	1066.1	1069.8	1077.3	1086.7	1088.6
27.5°	1041.7	1043.6	1052.9	1066.1	1068.0
30°	1009.8	1015.4	1026.7	1041.7	1043.6
32.5°	981.6	987.3	1000.4	1015.4	1019.2
35°	946.0	953.5	968.5	987.3	991.0
37.5°	914.1	919.7	938.5	959.1	964.7
40°	874.6	885.9	904.7	929.1	938.5
42.5°	835.2	846.5	869.0	900.9	912.2
45°	793.9	807.1	835.2	870.9	885.9
47.5°	752.6	767.7	799.6	840.9	857.7
50°	705.7	724.5	763.9	810.8	829.6
52.5°	660.7	683.2	726.4	778.9	803.3
55°	613.7	636.3	692.6	747.0	773.3
57.5°	561.2	591.2	653.2	715.1	743.3
60°	512.4	540.5	615.6	683.2	711.3
62.5°	459.8	497.4	578.1	649.4	677.6
65°	405.4	446.7	538.7	610.0	638.1
67.5°	356.6	401.7	499.3	570.6	598.7
70°	298.4	354.7	456.1	527.4	555.6
72.5°	244.0	305.9	411.0	480.5	506.8
75°	191.4	260.9	364.1	426.1	439.2
77.5°	142.6	215.8	315.3	341.6	332.2
80°	101.4	172.7	245.9	232.7	238.4
82.5°	65.7	131.4	152.0	172.7	178.3
85°	37.5	77.0	93.8	101.4	105.1
87.5°	16.9	28.2	37.5	37.5	35.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)