

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: P313725

Luminaire Tested: **24FCZ2-65HE-UNV-L83050-RDP-CP125-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: P313725
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-CP125-W2A-U-3000K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" POLYCARB 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: 3711.0 lumens
Efficiency: N/A
Efficacy: 70.7 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

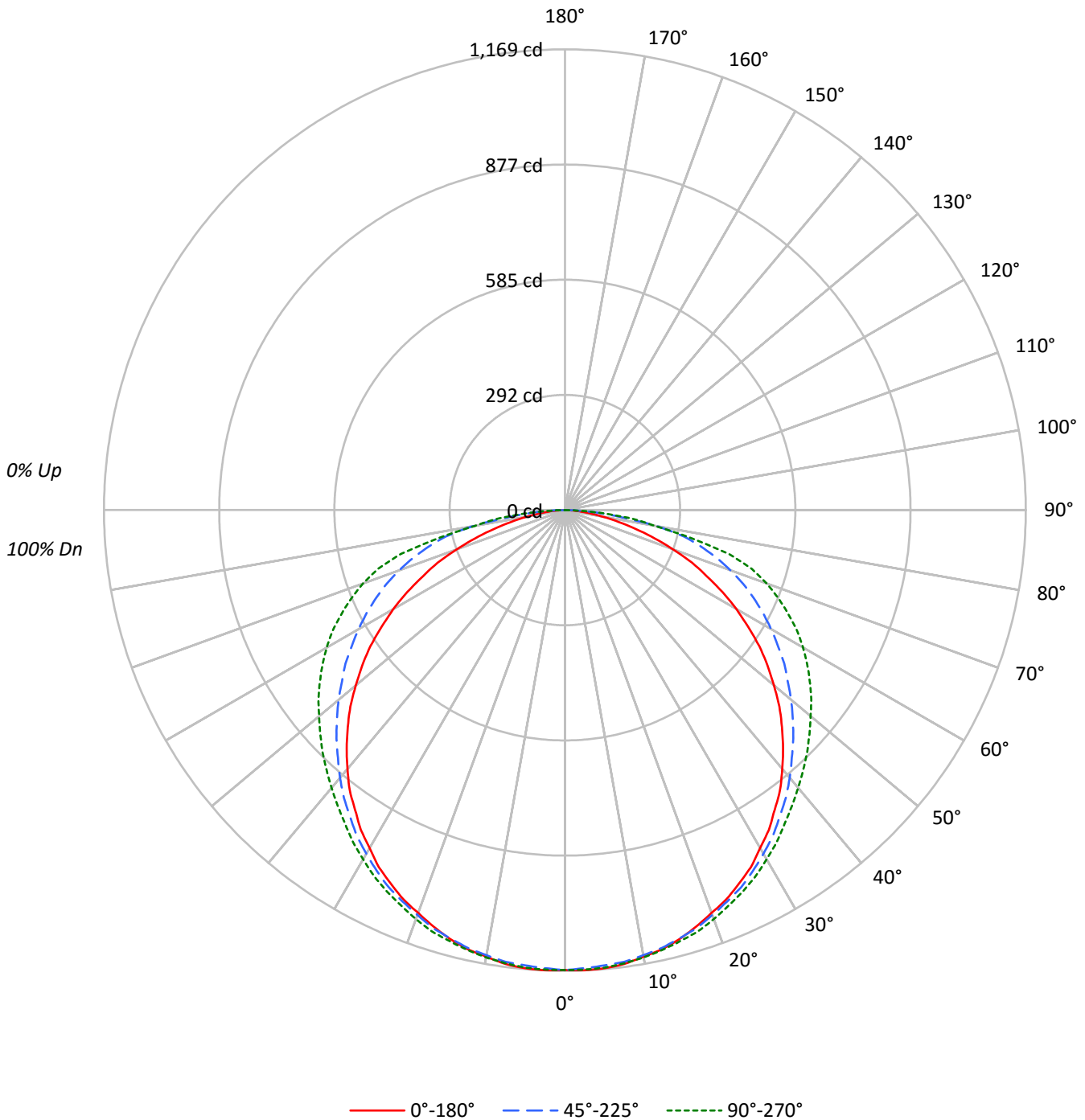
Input Watts (W): 52.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	68	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°	1570	1570	1570
5°	1576	1566	1574
10°	1572	1567	1574
15°	1569	1567	1577
20°	1558	1566	1581
25°	1552	1569	1585
30°	1539	1564	1590
35°	1524	1560	1596
40°	1507	1558	1616
45°	1482	1559	1653
50°	1449	1568	1703
55°	1412	1593	1779
60°	1352	1625	1877
65°	1266	1682	1992
70°	1151	1760	2143
75°	976	1856	2239
80°	770	1868	1812
85°	568	1420	1592



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	110.7	3.0
10°-20°	318.6	8.6
20°-30°	487.2	13.1
30°-40°	595.6	16.0
40°-50°	634.8	17.1
50°-60°	606.9	16.4
60°-70°	514.1	13.9
70°-80°	345.5	9.3
80°-90°	97.5	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°	916.5	24.7
0°-40°	1512.1	40.7
0°-60°	2753.8	74.2
0°-90°	3711.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3711.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1167	1167	1167	1167	1167	
5°	1167	1165	1160	1165	1165	111
15°	1126	1126	1125	1134	1132	318
25°	1046	1049	1057	1066	1068	482
35°	928	935	950	968	972	581
45°	779	792	819	854	869	601
55°	602	624	679	733	758	536
65°	398	438	528	598	626	395
75°	188	256	357	418	431	201
85°	37	76	92	99	103	46
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1167.0	1167.0	1167.0	1167.0	1167.0
2.5°	1168.8	1168.8	1163.3	1167.0	1167.0
5°	1167.0	1165.2	1159.6	1165.2	1165.2
7.5°	1161.5	1159.6	1156.0	1161.5	1159.6
10°	1150.4	1150.4	1146.8	1152.3	1152.3
12.5°	1141.2	1139.4	1137.6	1144.9	1143.1
15°	1126.5	1126.5	1124.7	1133.9	1132.0
17.5°	1108.1	1109.9	1111.8	1119.1	1121.0
20°	1087.9	1091.5	1093.4	1104.4	1104.4
22.5°	1069.4	1071.3	1075.0	1086.0	1086.0
25°	1045.5	1049.2	1056.6	1065.8	1067.6
27.5°	1021.6	1023.4	1032.6	1045.5	1047.4
30°	990.3	995.8	1006.9	1021.6	1023.4
32.5°	962.7	968.2	981.1	995.8	999.5
35°	927.7	935.1	949.8	968.2	971.9
37.5°	896.4	901.9	920.3	940.6	946.1
40°	857.8	868.8	887.2	911.1	920.3
42.5°	819.1	830.2	852.2	883.5	894.6
45°	778.6	791.5	819.1	854.1	868.8
47.5°	738.1	752.8	784.1	824.6	841.2
50°	692.1	710.5	749.2	795.2	813.6
52.5°	647.9	670.0	712.4	763.9	787.8
55°	601.9	624.0	679.2	732.6	758.4
57.5°	550.4	579.8	640.6	701.3	728.9
60°	502.5	530.1	603.7	670.0	697.6
62.5°	451.0	487.8	566.9	636.9	664.5
65°	397.6	438.1	528.3	598.2	625.8
67.5°	349.7	393.9	489.6	559.6	587.2
70°	292.7	347.9	447.3	517.2	544.8
72.5°	239.3	300.0	403.1	471.2	497.0
75°	187.8	255.9	357.1	417.8	430.7
77.5°	139.9	211.7	309.2	335.0	325.8
80°	99.4	169.3	241.1	228.2	233.8
82.5°	64.4	128.8	149.1	169.3	174.9
85°	36.8	75.5	92.0	99.4	103.1
87.5°	16.6	27.6	36.8	36.8	35.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)