

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: P313673

Luminaire Tested: **24FCZ2-55HE-UNV-L83050-RDP-CA125-W2A-U-4500K**

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: P313673
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: 24FCZ2-55HE-UNV-L83050-RDP-CA125-W2A-U-4500K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" ACRYLIC SHEET
Light Source: (336) 4500K 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: 3605.0 lumens
Efficiency: N/A
Efficacy: 79.8 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

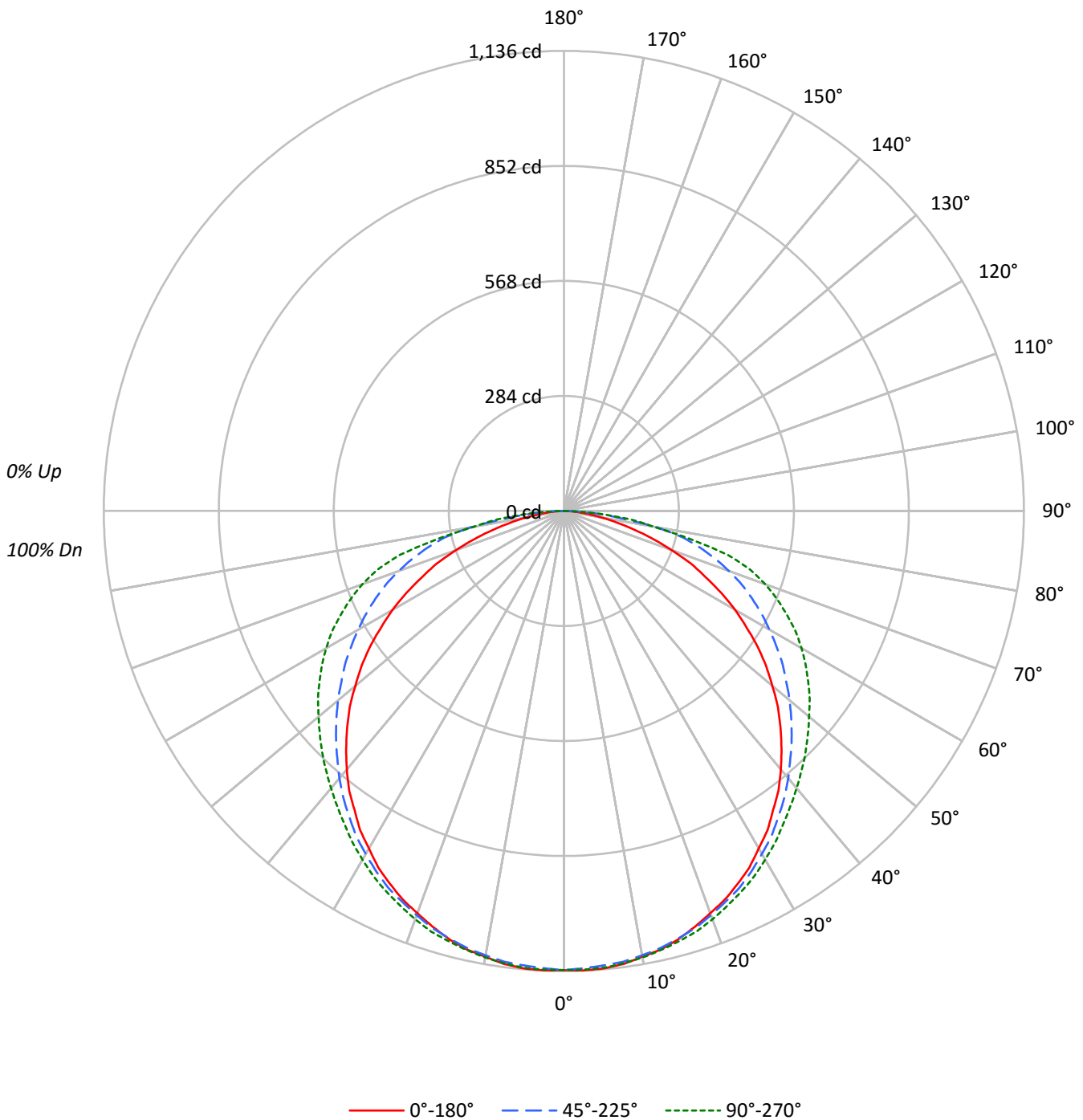
Input Watts (W): 45.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1525	1525	1525
5°	1531	1521	1529
10°	1527	1522	1529
15°	1524	1522	1532
20°	1513	1521	1536
25°	1508	1524	1540
30°	1495	1520	1545
35°	1480	1516	1551
40°	1464	1514	1570
45°	1439	1514	1606
50°	1407	1523	1654
55°	1372	1548	1728
60°	1314	1578	1824
65°	1230	1634	1936
70°	1118	1709	2082
75°	948	1803	2175
80°	748	1815	1760
85°	553	1380	1545



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	107.5	3.0
10°-20°	309.5	8.6
20°-30°	473.3	13.1
30°-40°	578.6	16.0
40°-50°	616.7	17.1
50°-60°	589.6	16.4
60°-70°	499.5	13.9
70°-80°	335.7	9.3
80°-90°	94.7	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°	890.3	24.7
0°-40°	1468.9	40.7
0°-60°	2675.2	74.2
0°-90°	3605.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3605.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1134	1134	1134	1134	1134	
5°	1134	1132	1126	1132	1132	108
15°	1094	1094	1092	1102	1100	309
25°	1016	1019	1026	1035	1037	468
35°	901	908	923	941	944	565
45°	756	769	796	830	844	583
55°	585	606	660	712	737	521
65°	386	426	513	581	608	383
75°	182	248	347	406	418	195
85°	36	73	89	97	100	44
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1133.7	1133.7	1133.7	1133.7	1133.7
2.5°	1135.5	1135.5	1130.1	1133.7	1133.7
5°	1133.7	1131.9	1126.5	1131.9	1131.9
7.5°	1128.3	1126.5	1122.9	1128.3	1126.5
10°	1117.6	1117.6	1114.0	1119.4	1119.4
12.5°	1108.6	1106.8	1105.1	1112.2	1110.4
15°	1094.3	1094.3	1092.5	1101.5	1099.7
17.5°	1076.4	1078.2	1080.0	1087.2	1089.0
20°	1056.8	1060.4	1062.1	1072.9	1072.9
22.5°	1038.9	1040.7	1044.3	1055.0	1055.0
25°	1015.7	1019.2	1026.4	1035.3	1037.1
27.5°	992.4	994.2	1003.1	1015.7	1017.4
30°	962.0	967.4	978.1	992.4	994.2
32.5°	935.2	940.6	953.1	967.4	971.0
35°	901.2	908.4	922.7	940.6	944.1
37.5°	870.8	876.2	894.1	913.7	919.1
40°	833.3	844.0	861.9	885.1	894.1
42.5°	795.7	806.4	827.9	858.3	869.0
45°	756.4	768.9	795.7	829.7	844.0
47.5°	717.0	731.3	761.7	801.1	817.2
50°	672.3	690.2	727.8	772.5	790.4
52.5°	629.4	650.9	692.0	742.1	765.3
55°	584.7	606.2	659.8	711.7	736.7
57.5°	534.6	563.3	622.3	681.3	708.1
60°	488.2	515.0	586.5	650.9	677.7
62.5°	438.1	473.9	550.7	618.7	645.5
65°	386.2	425.6	513.2	581.1	608.0
67.5°	339.7	382.7	475.6	543.6	570.4
70°	284.3	338.0	434.5	502.5	529.3
72.5°	232.5	291.5	391.6	457.8	482.8
75°	182.4	248.5	346.9	405.9	418.4
77.5°	135.9	205.6	300.4	325.4	316.5
80°	96.6	164.5	234.2	221.7	227.1
82.5°	62.6	125.2	144.8	164.5	169.9
85°	35.8	73.3	89.4	96.6	100.1
87.5°	16.1	26.8	35.8	35.8	34.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)