

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: P312427

Luminaire Tested: **14FCZ2-44-UNV-L83050-S-CP125-W2A-U-4000K**

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: P312427
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-40)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 14FCZ2-44-UNV-L83050-S-CP125-W2A-U-4000K
Description: 1'X4' TROFFER LED MODULE, SMOOTH LENS, 0.125" POLYCARB SHEET
Light Source: (168) 4000K 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: 4308.0 lumens
Efficiency: N/A
Efficacy: 109.9 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.26 / 1.36
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

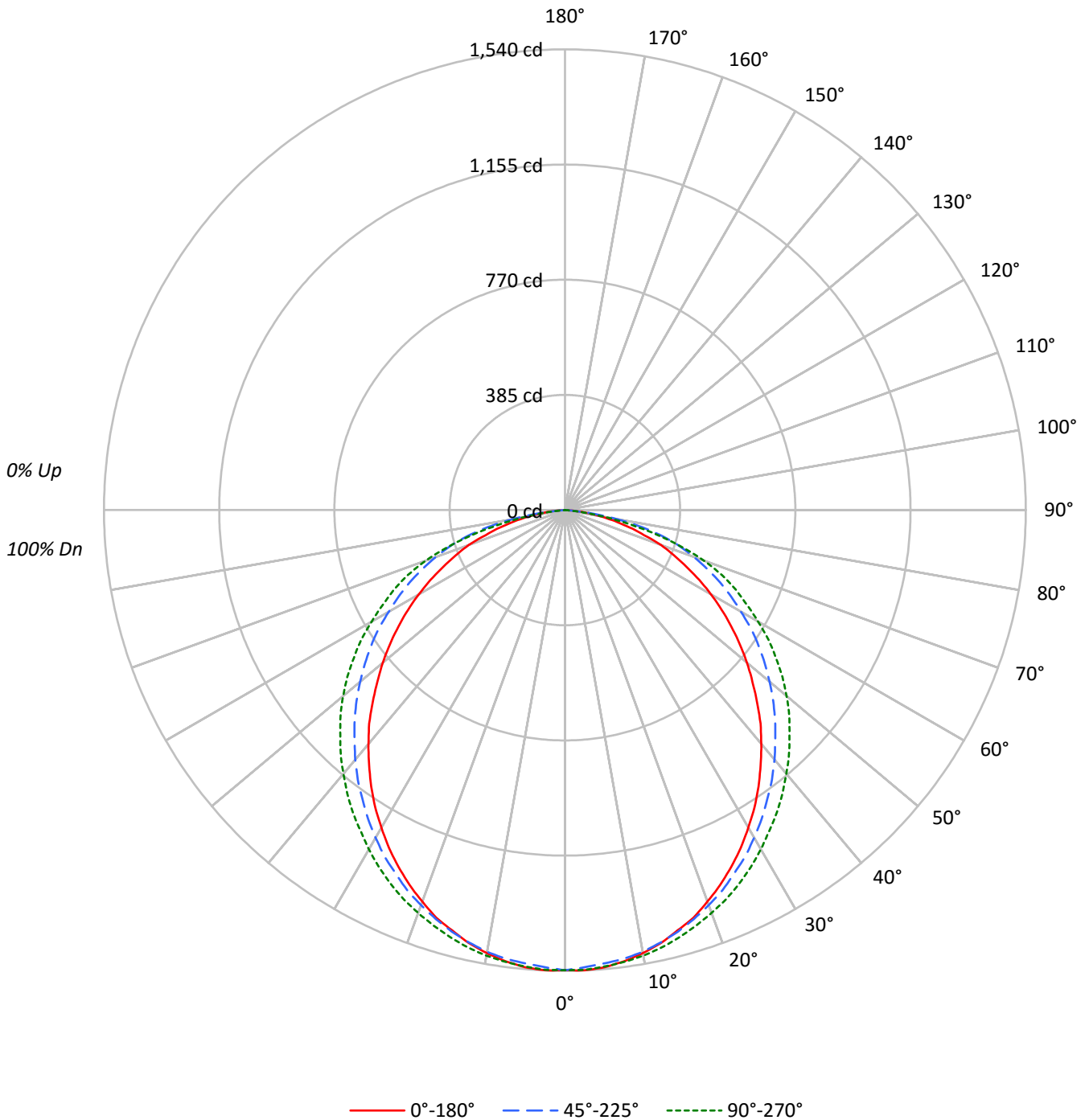
Input Watts (W): 39.2
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	109	104	100	96	106	102	98	94	97	94	91	94	91	89	90	88	86	84
2	99	90	84	78	96	89	82	77	85	80	75	82	77	73	79	75	72	70
3	90	79	71	65	87	78	70	64	75	68	63	72	66	62	69	65	61	58
4	82	70	61	55	80	69	61	54	66	59	53	64	58	53	62	56	52	50
5	76	63	54	47	74	62	53	47	59	52	46	57	51	46	56	50	45	43
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	38
7	65	51	42	36	63	50	42	36	49	41	36	47	41	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	32	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27
10	53	40	32	26	52	39	31	26	38	31	26	37	31	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4138	4138	4138
5°	4143	4108	4137
10°	4109	4097	4132
15°	4052	4064	4118
20°	3988	4025	4104
25°	3907	3976	4091
30°	3810	3929	4068
35°	3705	3873	4056
40°	3587	3827	4044
45°	3455	3780	4040
50°	3327	3738	4051
55°	3187	3708	4039
60°	3035	3655	4012
65°	2856	3645	4012
70°	2689	3613	3899
75°	2332	3531	3331
80°	1886	2847	2218
85°	1254	988	661



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	145.2	3.4
10°-20°	413.2	9.6
20°-30°	619.9	14.4
30°-40°	739.4	17.2
40°-50°	764.4	17.7
50°-60°	697.9	16.2
60°-70°	549.2	12.7
70°-80°	319.7	7.4
80°-90°	58.9	1.4
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°	1178.3	27.4
0°-40°	1917.8	44.5
0°-60°	3380.1	78.5
0°-90°	4308.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4308.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1538	1538	1538	1538	1538	
5°	1534	1529	1521	1534	1532	145
15°	1455	1457	1459	1478	1478	410
25°	1316	1322	1339	1371	1378	606
35°	1128	1143	1179	1224	1235	705
45°	908	938	993	1049	1062	701
55°	679	716	790	848	861	607
65°	448	496	572	617	630	445
75°	224	278	340	333	320	238
85°	41	58	32	26	21	53
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1537.9	1537.9	1537.9	1537.9	1537.9
2.5°	1540.0	1535.7	1529.3	1540.0	1537.9
5°	1533.6	1529.3	1520.8	1533.6	1531.5
7.5°	1520.8	1516.5	1512.3	1525.1	1522.9
10°	1503.7	1501.6	1499.4	1514.4	1512.3
12.5°	1482.3	1482.3	1480.2	1497.3	1497.3
15°	1454.6	1456.7	1458.9	1478.1	1478.1
17.5°	1429.0	1426.8	1433.2	1454.6	1456.7
20°	1392.6	1396.9	1405.5	1431.1	1433.2
22.5°	1356.3	1360.6	1375.6	1401.2	1407.6
25°	1315.7	1322.2	1339.2	1371.3	1377.7
27.5°	1273.0	1281.6	1305.1	1339.2	1345.6
30°	1226.0	1238.9	1264.5	1302.9	1309.3
32.5°	1179.0	1191.9	1223.9	1262.3	1270.9
35°	1127.8	1142.7	1179.0	1223.9	1234.6
37.5°	1074.4	1093.6	1136.3	1181.2	1194.0
40°	1021.0	1042.3	1089.3	1136.3	1151.3
42.5°	967.6	988.9	1040.2	1093.6	1108.6
45°	907.8	937.7	993.2	1048.8	1061.6
47.5°	850.1	882.1	944.1	999.6	1016.7
50°	794.6	826.6	892.8	950.5	967.6
52.5°	736.9	771.1	841.6	901.4	916.3
55°	679.2	715.5	790.3	848.0	860.8
57.5°	621.6	660.0	736.9	792.4	807.4
60°	563.9	604.5	679.2	734.8	745.4
62.5°	506.2	548.9	625.8	675.0	685.6
65°	448.5	495.5	572.4	617.3	630.1
67.5°	393.0	440.0	514.8	557.5	568.2
70°	341.8	384.5	459.2	491.3	495.5
72.5°	277.7	331.1	403.7	420.8	410.1
75°	224.3	277.7	339.6	333.2	320.4
77.5°	170.9	224.3	264.9	243.5	226.4
80°	121.7	175.1	183.7	151.7	143.1
82.5°	79.0	121.7	102.5	79.0	64.1
85°	40.6	57.7	32.0	25.6	21.4
87.5°	12.8	8.5	4.3	4.3	2.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)