

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: P312428

Luminaire Tested: **14FCZ2-44-UNV-L83050-S-CP125-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: P312428
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-4500K
Description: 1'X4' TROFFER LED MODULE, SMOOTH LENS, 0.125" POLYCARB SHEET
Light Source: (168) 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: 4349.0 lumens
Efficiency: N/A
Efficacy: 108.2 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

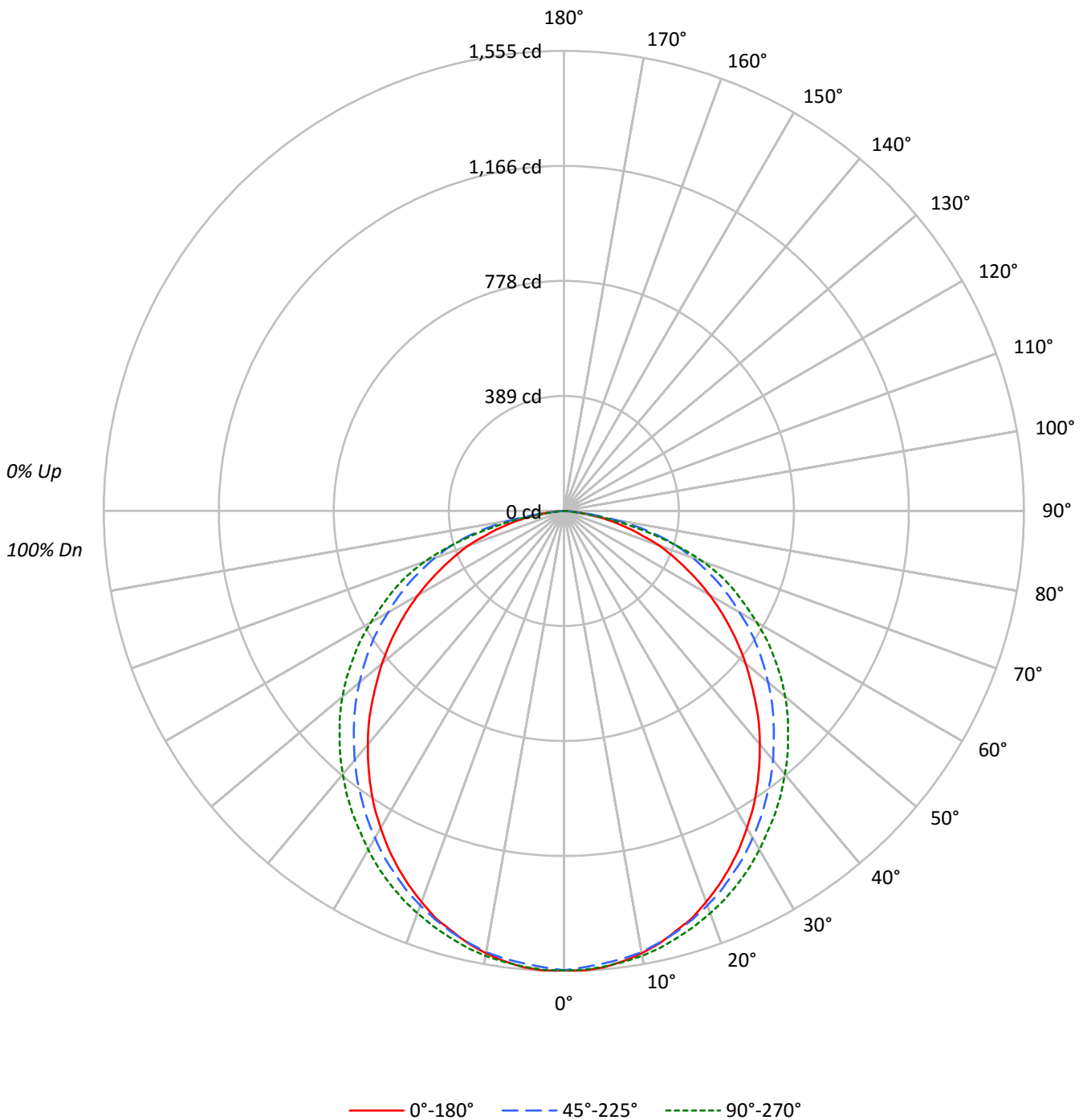
Input Watts (W): 40.2
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	4178	4178	4178
5°	4182	4147	4176
10°	4148	4136	4171
15°	4091	4103	4157
20°	4026	4063	4143
25°	3944	4014	4130
30°	3846	3966	4107
35°	3740	3910	4094
40°	3621	3863	4083
45°	3487	3816	4078
50°	3358	3773	4089
55°	3217	3743	4077
60°	3064	3690	4050
65°	2883	3680	4050
70°	2714	3648	3936
75°	2354	3564	3362
80°	1905	2873	2239
85°	1266	997	667



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	146.6	3.4
10°-20°	417.2	9.6
20°-30°	625.8	14.4
30°-40°	746.5	17.2
40°-50°	771.7	17.7
50°-60°	704.6	16.2
60°-70°	554.5	12.7
70°-80°	322.7	7.4
80°-90°	59.5	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°	1189.5	27.4
0°-40°	1936.0	44.5
0°-60°	3412.3	78.5
0°-90°	4349.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4349.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1552	1552	1552	1552	1552	
5°	1548	1544	1535	1548	1546	147
15°	1468	1471	1473	1492	1492	414
25°	1328	1335	1352	1384	1391	612
35°	1138	1154	1190	1236	1246	712
45°	916	947	1003	1059	1072	708
55°	686	722	798	856	869	613
65°	453	500	578	623	636	450
75°	226	280	343	336	323	241
85°	41	58	32	26	22	53
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1552.5	1552.5	1552.5	1552.5	1552.5
2.5°	1554.7	1550.4	1543.9	1554.7	1552.5
5°	1548.2	1543.9	1535.3	1548.2	1546.1
7.5°	1535.3	1531.0	1526.6	1539.6	1537.4
10°	1518.0	1515.9	1513.7	1528.8	1526.6
12.5°	1496.5	1496.5	1494.3	1511.6	1511.6
15°	1468.4	1470.6	1472.7	1492.1	1492.1
17.5°	1442.6	1440.4	1446.9	1468.4	1470.6
20°	1405.9	1410.2	1418.8	1444.7	1446.9
22.5°	1369.2	1373.5	1388.6	1414.5	1421.0
25°	1328.3	1334.7	1352.0	1384.3	1390.8
27.5°	1285.1	1293.8	1317.5	1352.0	1358.5
30°	1237.7	1250.6	1276.5	1315.3	1321.8
32.5°	1190.3	1203.2	1235.5	1274.4	1283.0
35°	1138.5	1153.6	1190.3	1235.5	1246.3
37.5°	1084.6	1104.0	1147.1	1192.4	1205.4
40°	1030.7	1052.3	1099.7	1147.1	1162.2
42.5°	976.8	998.4	1050.1	1104.0	1119.1
45°	916.4	946.6	1002.7	1058.7	1071.7
47.5°	858.2	890.5	953.1	1009.1	1026.4
50°	802.1	834.5	901.3	959.5	976.8
52.5°	743.9	778.4	849.6	909.9	925.0
55°	685.7	722.4	797.8	856.0	869.0
57.5°	627.5	666.3	743.9	800.0	815.1
60°	569.3	610.2	685.7	741.8	752.5
62.5°	511.0	554.2	631.8	681.4	692.2
65°	452.8	500.3	577.9	623.2	636.1
67.5°	396.8	444.2	519.7	562.8	573.6
70°	345.0	388.1	463.6	495.9	500.3
72.5°	280.3	334.2	407.5	424.8	414.0
75°	226.4	280.3	342.8	336.4	323.4
77.5°	172.5	226.4	267.4	245.8	228.6
80°	122.9	176.8	185.4	153.1	144.5
82.5°	79.8	122.9	103.5	79.8	64.7
85°	41.0	58.2	32.3	25.9	21.6
87.5°	12.9	8.6	4.3	4.3	2.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)