

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: P312289

Luminaire Tested: **14FCZ2-44-UNV-L83050-CP250-W2A-U-5000K**

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: P312289
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-49)
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-CP250-W2A-U-5000K
Description: 1'X4' TROFFER LED MODULE,RIBBED LENS, 0.250" POLYCARB SHEET
Light Source: (168) 5000K 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: 4088.0 lumens
Efficiency: N/A
Efficacy: 101.7 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

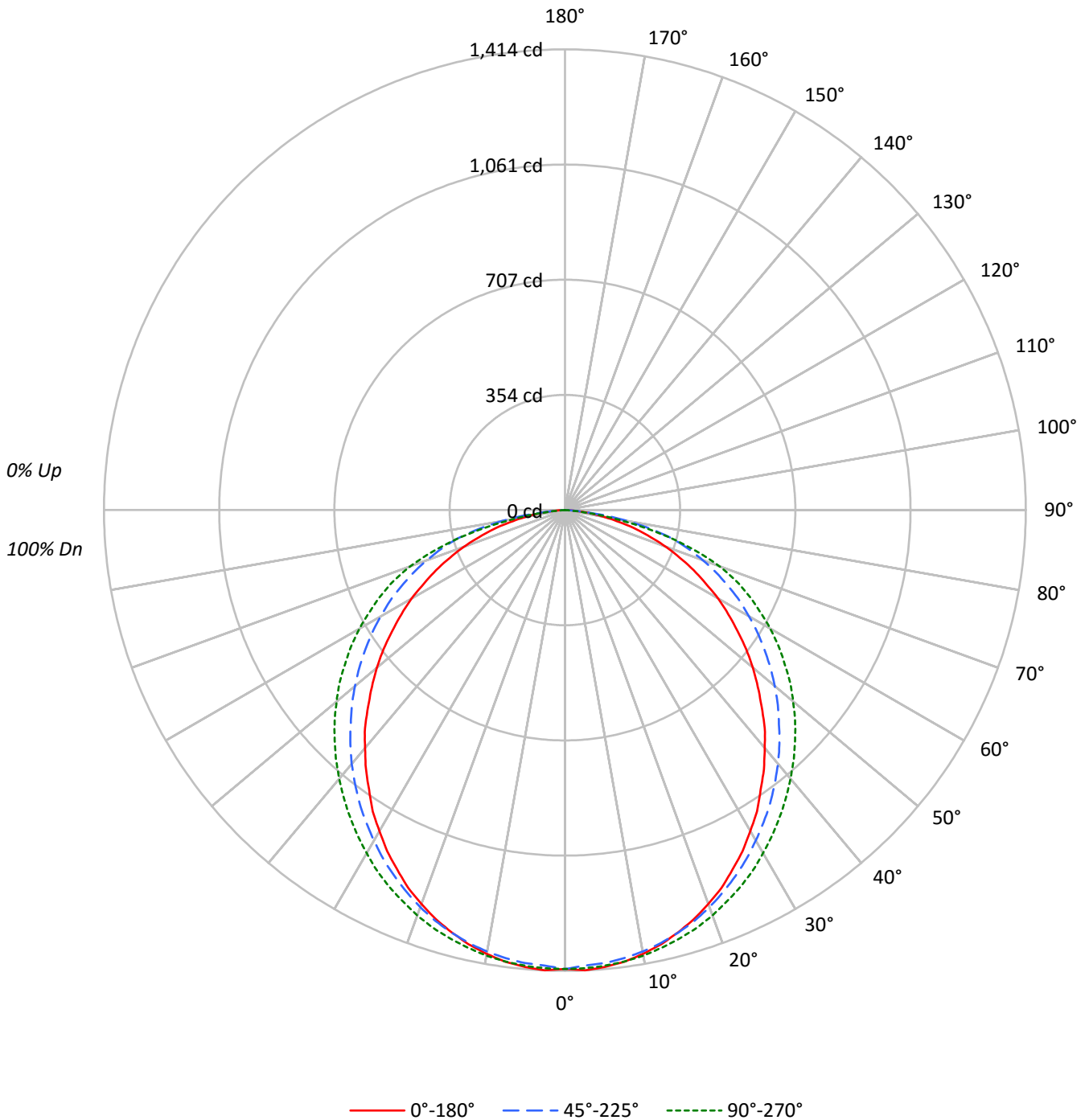
Input Watts (W): 40.2
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	99	95	106	101	97	94	97	94	91	93	90	88	90	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58
4	82	70	61	54	79	68	60	53	66	58	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37
7	64	51	42	35	63	50	41	35	48	41	35	47	40	35	45	39	34	32
8	60	46	37	32	58	45	37	31	44	37	31	43	36	31	42	35	31	29
9	56	42	34	28	54	42	34	28	41	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	39	31	26	37	30	26	37	30	25	36	30	25	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3790	3790	3790
5°	3802	3770	3792
10°	3778	3759	3794
15°	3738	3741	3791
20°	3683	3714	3790
25°	3613	3678	3786
30°	3535	3640	3778
35°	3441	3608	3776
40°	3349	3574	3782
45°	3247	3535	3802
50°	3152	3518	3828
55°	3032	3507	3862
60°	2924	3513	3915
65°	2774	3523	3976
70°	2603	3550	3973
75°	2360	3583	3592
80°	1936	3093	2557
85°	1436	1463	590



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	133.3	3.3
10°-20°	380.7	9.3
20°-30°	573.5	14.0
30°-40°	688.2	16.8
40°-50°	717.3	17.5
50°-60°	664.0	16.2
60°-70°	536.5	13.1
70°-80°	327.1	8.0
80°-90°	67.5	1.7
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°	1087.4	26.6
0°-40°	1775.6	43.4
0°-60°	3156.9	77.2
0°-90°	4088.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4088.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1408	1408	1408	1408	1408	
5°	1407	1404	1396	1406	1404	134
15°	1342	1343	1343	1361	1361	378
25°	1217	1224	1239	1270	1275	561
35°	1047	1064	1098	1138	1150	656
45°	853	879	929	981	999	659
55°	646	680	748	806	823	579
65°	436	479	553	609	624	431
75°	227	277	345	350	346	238
85°	46	69	47	26	19	57
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1408.3	1408.3	1408.3	1408.3	1408.3
2.5°	1413.8	1409.2	1399.2	1409.2	1407.4
5°	1407.4	1403.8	1395.6	1405.6	1403.8
7.5°	1398.3	1394.7	1387.4	1399.2	1397.4
10°	1382.8	1381.0	1375.5	1389.2	1388.3
12.5°	1364.6	1363.7	1360.9	1376.4	1375.5
15°	1341.8	1342.7	1342.7	1360.9	1360.9
17.5°	1316.3	1318.1	1321.7	1341.8	1344.5
20°	1286.2	1289.8	1297.1	1319.9	1323.6
22.5°	1255.2	1257.9	1268.9	1296.2	1299.9
25°	1216.9	1224.2	1238.8	1269.8	1275.2
27.5°	1180.4	1186.8	1206.9	1238.8	1247.9
30°	1137.6	1147.6	1171.3	1206.0	1216.0
32.5°	1096.6	1107.5	1134.9	1175.0	1184.1
35°	1047.4	1063.8	1098.4	1138.5	1149.5
37.5°	1002.7	1018.2	1057.4	1101.1	1113.9
40°	953.5	972.6	1017.3	1063.8	1076.5
42.5°	907.9	926.1	974.4	1021.8	1039.2
45°	853.2	878.7	928.9	980.8	999.0
47.5°	803.1	828.6	886.0	941.6	958.0
50°	752.9	780.3	840.4	897.9	914.3
52.5°	701.0	730.1	794.9	852.3	871.4
55°	646.3	680.0	747.5	805.8	823.1
57.5°	594.3	629.0	701.0	760.2	777.5
60°	543.3	578.8	652.7	709.2	727.4
62.5°	486.8	528.7	605.3	660.9	674.5
65°	435.7	478.6	553.3	608.9	624.4
67.5°	381.9	428.4	503.2	554.2	568.8
70°	330.9	379.2	451.2	498.6	505.0
72.5°	276.2	325.4	398.3	428.4	428.4
75°	227.0	277.1	344.6	350.0	345.5
77.5°	173.2	228.8	272.6	261.6	250.7
80°	124.9	179.6	199.6	179.6	165.0
82.5°	83.9	130.4	120.3	95.7	84.8
85°	46.5	69.3	47.4	26.4	19.1
87.5°	17.3	15.5	4.6	4.6	4.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)