

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: P312438

Luminaire Tested: **14FCZ2-44-UNV-L83050-S-CP250-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: P312438
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-CP250-W2A-U-4500K
Description: 1'X4' TROFFER LED MODULE,SMOOTH LENS, 0.250" 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: 4131.0 lumens
Efficiency: N/A
Efficacy: 102.8 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

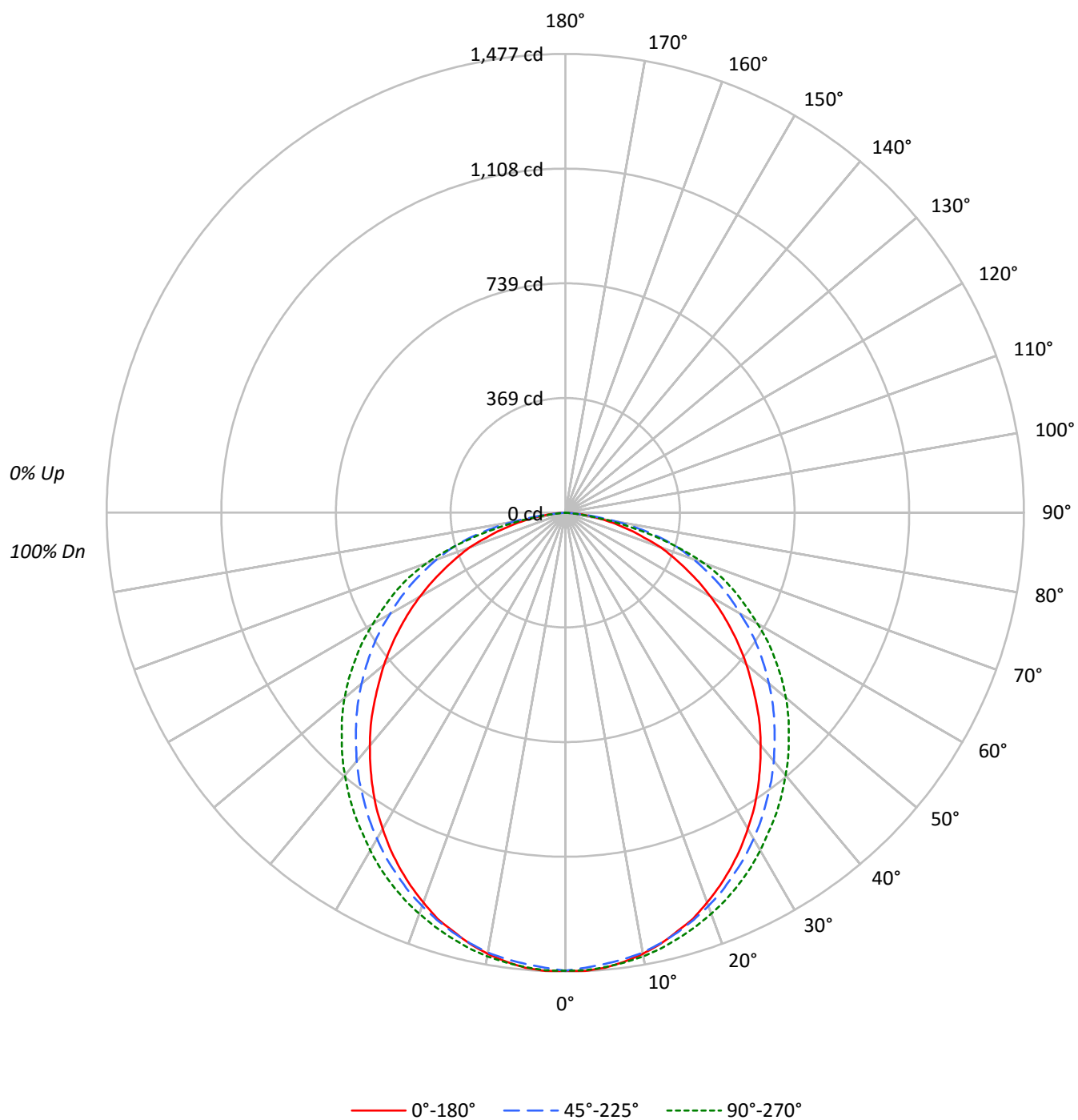
Input Watts (W): 40.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				0
RW	70	50	30	10	70	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		100
1	109	104	100	96	106	102	98	94	97	94	91		94	91	89		84
2	99	90	84	78	96	89	82	77	85	80	75		82	77	73		70
3	90	79	71	65	87	78	70	64	75	68	63		72	66	62		58
4	82	70	61	55	80	69	61	54	66	59	53		64	58	53		50
5	76	63	54	47	74	62	53	47	59	52	46		57	51	46		43
6	70	56	47	41	68	55	47	41	54	46	40		52	45	40		38
7	65	51	42	36	63	50	42	36	49	41	36		47	41	35		33
8	60	47	38	32	59	46	38	32	45	37	32		43	37	32		30
9	56	43	35	29	55	42	34	29	41	34	29		40	33	29		27
10	53	40	32	26	52	39	31	26	38	31	26		37	31	26		24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3968	3968	3968
5°	3972	3939	3967
10°	3940	3929	3962
15°	3886	3897	3948
20°	3824	3859	3936
25°	3746	3813	3923
30°	3653	3768	3901
35°	3552	3714	3889
40°	3439	3669	3878
45°	3313	3624	3874
50°	3190	3584	3884
55°	3056	3555	3872
60°	2910	3505	3847
65°	2739	3495	3847
70°	2578	3465	3739
75°	2236	3386	3194
80°	1808	2729	2126
85°	1201	948	633



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	139.3	3.4
10°-20°	396.3	9.6
20°-30°	594.4	14.4
30°-40°	709.1	17.2
40°-50°	733.0	17.7
50°-60°	669.2	16.2
60°-70°	526.7	12.7
70°-80°	306.6	7.4
80°-90°	56.5	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°	1129.9	27.4
0°-40°	1839.0	44.5
0°-60°	3241.2	78.5
0°-90°	4131.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4131.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1475	1475	1475	1475	1475	
5°	1471	1466	1458	1471	1469	139
15°	1395	1397	1399	1417	1417	394
25°	1262	1268	1284	1315	1321	581
35°	1081	1096	1131	1174	1184	676
45°	870	899	952	1006	1018	672
55°	651	686	758	813	825	582
65°	430	475	549	592	604	427
75°	215	266	326	320	307	229
85°	39	55	31	25	20	50
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1474.7	1474.7	1474.7	1474.7	1474.7
2.5°	1476.7	1472.7	1466.5	1476.7	1474.7
5°	1470.6	1466.5	1458.3	1470.6	1468.6
7.5°	1458.3	1454.2	1450.1	1462.4	1460.4
10°	1441.9	1439.9	1437.8	1452.2	1450.1
12.5°	1421.4	1421.4	1419.4	1435.8	1435.8
15°	1394.8	1396.9	1398.9	1417.3	1417.3
17.5°	1370.2	1368.2	1374.3	1394.8	1396.9
20°	1335.4	1339.5	1347.7	1372.3	1374.3
22.5°	1300.6	1304.7	1319.0	1343.6	1349.8
25°	1261.7	1267.8	1284.2	1314.9	1321.1
27.5°	1220.7	1228.9	1251.4	1284.2	1290.4
30°	1175.7	1188.0	1212.5	1249.4	1255.5
32.5°	1130.6	1142.9	1173.6	1210.5	1218.7
35°	1081.4	1095.8	1130.6	1173.6	1183.9
37.5°	1030.2	1048.7	1089.6	1132.7	1144.9
40°	979.0	999.5	1044.6	1089.6	1104.0
42.5°	927.8	948.3	997.5	1048.7	1063.0
45°	870.5	899.2	952.4	1005.7	1018.0
47.5°	815.2	845.9	905.3	958.6	974.9
50°	761.9	792.7	856.1	911.4	927.8
52.5°	706.6	739.4	807.0	864.3	878.7
55°	651.3	686.1	757.8	813.1	825.4
57.5°	596.0	632.9	706.6	759.9	774.2
60°	540.7	579.6	651.3	704.6	714.8
62.5°	485.4	526.4	600.1	647.2	657.5
65°	430.1	475.2	548.9	591.9	604.2
67.5°	376.9	421.9	493.6	534.6	544.8
70°	327.7	368.7	440.4	471.1	475.2
72.5°	266.3	317.5	387.1	403.5	393.3
75°	215.1	266.3	325.7	319.5	307.2
77.5°	163.9	215.1	254.0	233.5	217.1
80°	116.7	168.0	176.1	145.4	137.2
82.5°	75.8	116.7	98.3	75.8	61.4
85°	38.9	55.3	30.7	24.6	20.5
87.5°	12.3	8.2	4.1	4.1	2.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)