

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: P312423

Luminaire Tested: **14FCZ2-44-UNV-L83050-S-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: P312423
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-CA125-W2A-U-4500K
Description: 1'X4' TROFFER LED MODULE,SMOOTH LENS, 0.125" ACRYLIC 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: 4436.0 lumens
Efficiency: N/A
Efficacy: 110.3 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

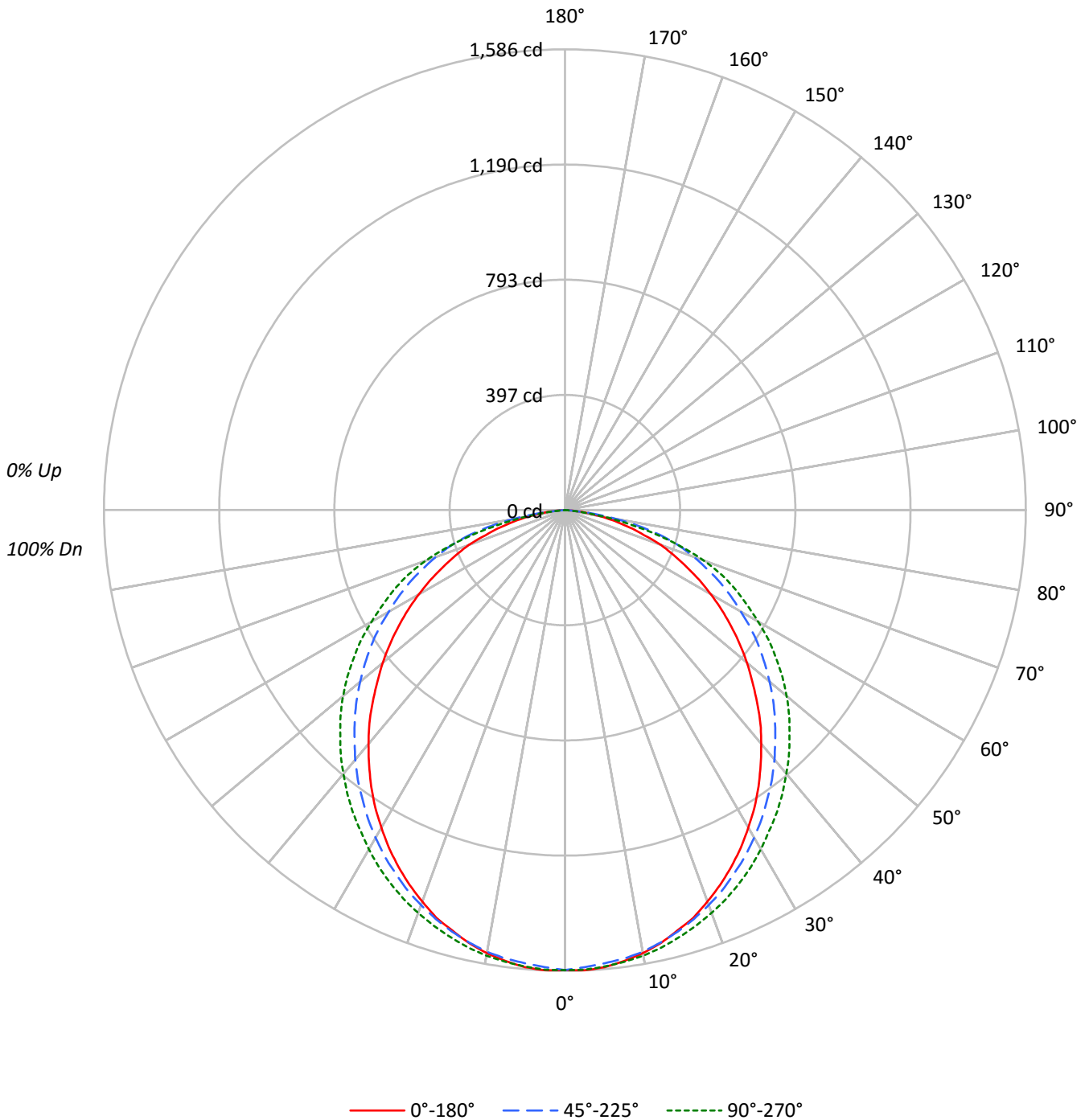
Input Watts (W): 40.2
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	4261	4261	4261
5°	4266	4230	4260
10°	4231	4219	4255
15°	4173	4185	4240
20°	4107	4144	4226
25°	4023	4094	4212
30°	3923	4046	4189
35°	3815	3988	4176
40°	3693	3940	4164
45°	3557	3892	4160
50°	3425	3849	4171
55°	3281	3818	4159
60°	3125	3764	4131
65°	2941	3753	4131
70°	2769	3721	4015
75°	2401	3636	3430
80°	1943	2930	2284
85°	1291	1019	679



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	149.5	3.4
10°-20°	425.5	9.6
20°-30°	638.3	14.4
30°-40°	761.4	17.2
40°-50°	787.1	17.7
50°-60°	718.7	16.2
60°-70°	565.6	12.7
70°-80°	329.2	7.4
80°-90°	60.7	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°	1213.3	27.4
0°-40°	1974.8	44.5
0°-60°	3480.6	78.5
0°-90°	4436.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4436.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1584	1584	1584	1584	1584	
5°	1579	1575	1566	1579	1577	150
15°	1498	1500	1502	1522	1522	423
25°	1355	1361	1379	1412	1419	624
35°	1161	1177	1214	1260	1271	726
45°	935	966	1023	1080	1093	722
55°	699	737	814	873	886	625
65°	462	510	589	636	649	459
75°	231	286	350	343	330	245
85°	42	59	33	26	22	54
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1583.6	1583.6	1583.6	1583.6	1583.6
2.5°	1585.8	1581.4	1574.8	1585.8	1583.6
5°	1579.2	1574.8	1566.0	1579.2	1577.0
7.5°	1566.0	1561.6	1557.2	1570.4	1568.2
10°	1548.4	1546.2	1544.0	1559.4	1557.2
12.5°	1526.4	1526.4	1524.2	1541.8	1541.8
15°	1497.8	1500.0	1502.2	1522.0	1522.0
17.5°	1471.4	1469.2	1475.8	1497.8	1500.0
20°	1434.0	1438.4	1447.2	1473.6	1475.8
22.5°	1396.6	1401.0	1416.4	1442.8	1449.4
25°	1354.8	1361.4	1379.0	1412.0	1418.6
27.5°	1310.9	1319.6	1343.8	1379.0	1385.6
30°	1262.5	1275.7	1302.1	1341.6	1348.2
32.5°	1214.1	1227.3	1260.3	1299.9	1308.7
35°	1161.3	1176.7	1214.1	1260.3	1271.3
37.5°	1106.3	1126.1	1170.1	1216.3	1229.5
40°	1051.3	1073.3	1121.7	1170.1	1185.5
42.5°	996.3	1018.3	1071.1	1126.1	1141.5
45°	934.8	965.5	1022.7	1079.9	1093.1
47.5°	875.4	908.4	972.1	1029.3	1046.9
50°	818.2	851.2	919.4	978.7	996.3
52.5°	758.8	794.0	866.6	928.2	943.5
55°	699.4	736.8	813.8	873.2	886.4
57.5°	640.0	679.6	758.8	816.0	831.4
60°	580.6	622.4	699.4	756.6	767.6
62.5°	521.3	565.2	644.4	695.0	706.0
65°	461.9	510.3	589.4	635.6	648.8
67.5°	404.7	453.1	530.1	574.0	585.0
70°	351.9	395.9	472.9	505.9	510.3
72.5°	285.9	340.9	415.7	433.3	422.3
75°	230.9	285.9	349.7	343.1	329.9
77.5°	176.0	230.9	272.7	250.7	233.1
80°	125.4	180.4	189.1	156.2	147.4
82.5°	81.4	125.4	105.6	81.4	66.0
85°	41.8	59.4	33.0	26.4	22.0
87.5°	13.2	8.8	4.4	4.4	2.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)