

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: P312283

Luminaire Tested: **14FCZ2-44-UNV-L83050-CP187-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: P312283
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-CP187-W2A-U-4500K
Description: 1'X4' TROFFER LED MODULE,RIBBED LENS, 0.187" 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: 4122.0 lumens
Efficiency: N/A
Efficacy: 102.5 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

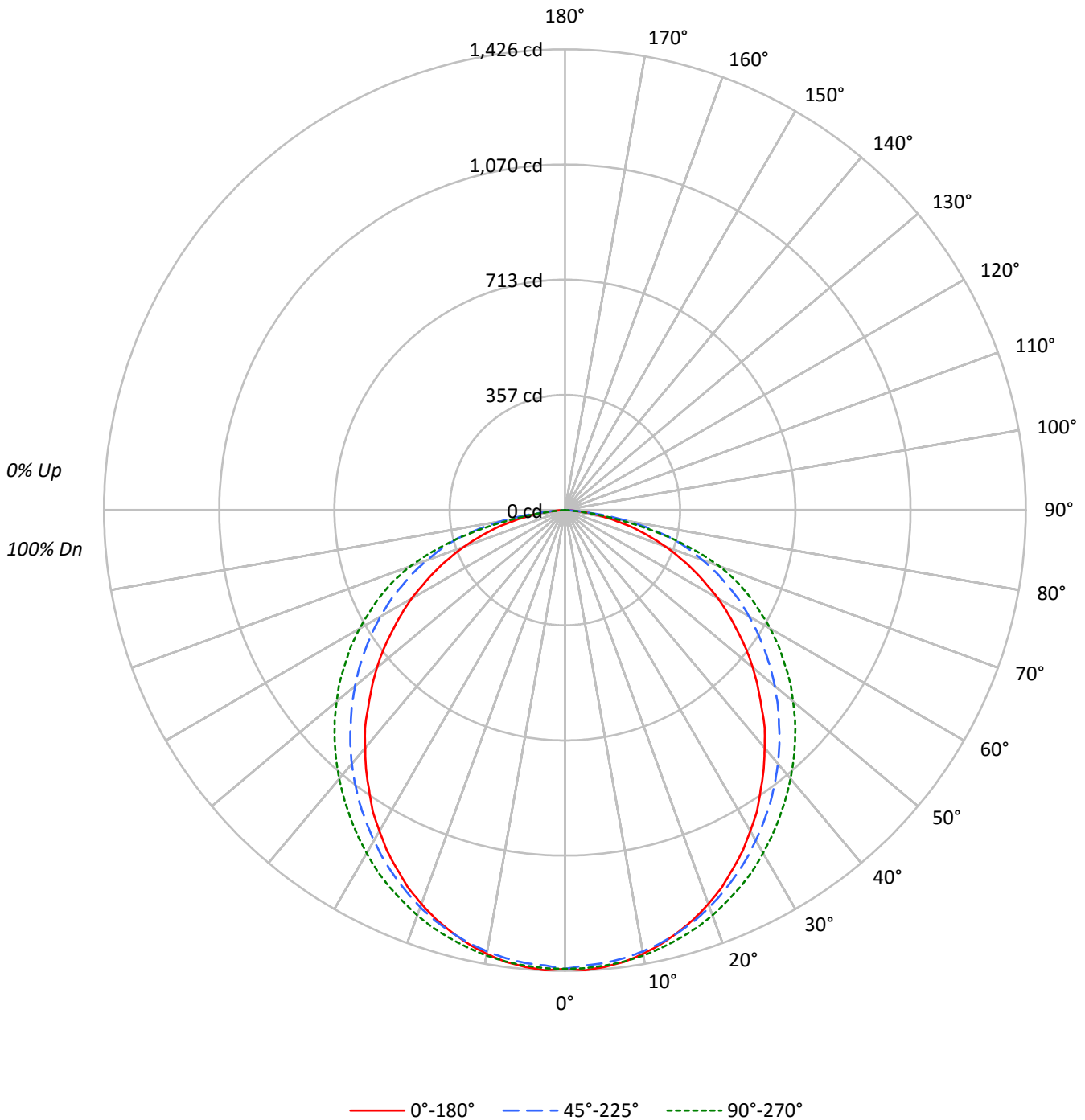
Input Watts (W): 40.2
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3821	3821	3821
5°	3833	3801	3823
10°	3810	3790	3825
15°	3769	3772	3823
20°	3714	3745	3822
25°	3643	3709	3818
30°	3564	3670	3810
35°	3469	3638	3807
40°	3377	3603	3813
45°	3274	3564	3834
50°	3178	3548	3859
55°	3058	3536	3894
60°	2948	3542	3948
65°	2797	3552	4009
70°	2625	3580	4006
75°	2380	3612	3621
80°	1951	3119	2579
85°	1448	1476	596



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	134.4	3.3
10°-20°	383.8	9.3
20°-30°	578.2	14.0
30°-40°	693.9	16.8
40°-50°	723.2	17.5
50°-60°	669.5	16.2
60°-70°	541.0	13.1
70°-80°	329.8	8.0
80°-90°	68.1	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°	1096.5	26.6
0°-40°	1790.3	43.4
0°-60°	3183.1	77.2
0°-90°	4122.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4122.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1420	1420	1420	1420	1420	
5°	1419	1415	1407	1417	1415	135
15°	1353	1354	1354	1372	1372	381
25°	1227	1234	1249	1280	1286	566
35°	1056	1073	1108	1148	1159	662
45°	860	886	937	989	1007	665
55°	652	686	754	812	830	584
65°	439	482	558	614	630	434
75°	229	279	347	353	348	240
85°	47	70	48	27	19	58
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1420.0	1420.0	1420.0	1420.0	1420.0
2.5°	1425.6	1421.0	1410.9	1421.0	1419.1
5°	1419.1	1415.4	1407.2	1417.3	1415.4
7.5°	1409.9	1406.3	1398.9	1410.9	1409.0
10°	1394.3	1392.5	1387.0	1400.7	1399.8
12.5°	1375.9	1375.0	1372.2	1387.9	1387.0
15°	1352.9	1353.9	1353.9	1372.2	1372.2
17.5°	1327.2	1329.0	1332.7	1352.9	1355.7
20°	1296.9	1300.6	1307.9	1330.9	1334.6
22.5°	1265.6	1268.4	1279.4	1307.0	1310.7
25°	1227.0	1234.4	1249.1	1280.3	1285.9
27.5°	1190.3	1196.7	1216.9	1249.1	1258.3
30°	1147.1	1157.2	1181.1	1216.0	1226.1
32.5°	1105.7	1116.7	1144.3	1184.7	1193.9
35°	1056.1	1072.6	1107.5	1148.0	1159.0
37.5°	1011.0	1026.7	1066.2	1110.3	1123.2
40°	961.4	980.7	1025.7	1072.6	1085.5
42.5°	915.4	933.8	982.5	1030.3	1047.8
45°	860.3	886.0	936.6	989.0	1007.4
47.5°	809.7	835.5	893.4	949.5	966.0
50°	759.2	786.8	847.4	905.3	921.9
52.5°	706.8	736.2	801.5	859.4	878.7
55°	651.7	685.7	753.7	812.5	830.0
57.5°	599.3	634.2	706.8	766.5	784.0
60°	547.8	583.6	658.1	715.1	733.5
62.5°	490.8	533.1	610.3	666.4	680.1
65°	439.3	482.5	557.9	614.0	629.6
67.5°	385.1	432.0	507.4	558.8	573.5
70°	333.6	382.4	455.0	502.8	509.2
72.5°	278.5	328.1	401.7	432.0	432.0
75°	228.9	279.4	347.4	352.9	348.3
77.5°	174.6	230.7	274.8	263.8	252.8
80°	125.9	181.1	201.3	181.1	166.4
82.5°	84.6	131.4	121.3	96.5	85.5
85°	46.9	69.9	47.8	26.7	19.3
87.5°	17.5	15.6	4.6	4.6	4.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)