

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: P312038

Luminaire Tested: **14FCZ2-25-UNV-L83050-RDP-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: P312038
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-43)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 14FCZ2-25-UNV-L83050-RDP-CP250-W2A-U-4500K
Description: 1'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT , 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: 1480.0 lumens
Efficiency: N/A
Efficacy: 71.8 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.28 / 1.4
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

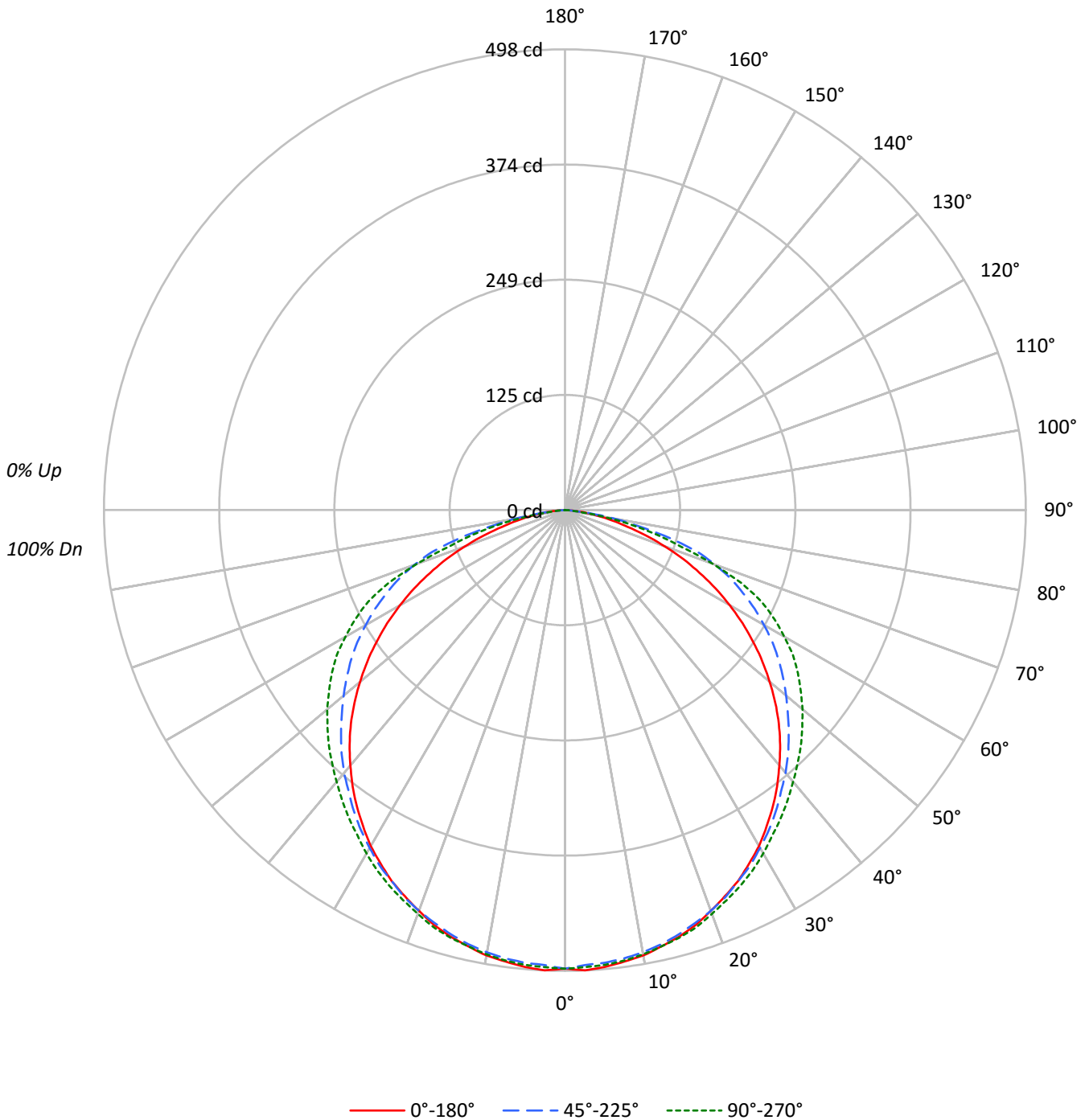
Input Watts (W): 20.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				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	93	91	88	90	88	86	84
2	99	90	83	77	96	88	82	76	85	79	75	81	77	73	78	75	71	69
3	90	79	71	64	87	77	70	63	74	68	62	71	66	61	69	64	60	58
4	82	70	61	54	80	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	50	42	35	62	50	41	35	48	40	35	47	40	35	45	39	34	32
8	60	46	37	31	58	45	37	31	44	36	31	43	36	31	41	35	31	29
9	56	42	34	28	54	42	34	28	40	33	28	39	33	28	38	32	28	26
10	52	39	31	25	51	38	31	25	37	30	25	36	30	25	35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1334	1334	1334
5°	1339	1327	1333
10°	1336	1326	1332
15°	1329	1323	1333
20°	1320	1320	1330
25°	1314	1314	1331
30°	1303	1310	1332
35°	1287	1306	1336
40°	1266	1303	1348
45°	1244	1302	1372
50°	1209	1306	1403
55°	1165	1323	1442
60°	1107	1337	1474
65°	1023	1354	1494
70°	909	1364	1337
75°	733	1226	1069
80°	573	860	699
85°	392	250	179



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	46.9	3.2
10°-20°	134.6	9.1
20°-30°	205.0	13.8
30°-40°	249.7	16.9
40°-50°	264.9	17.9
50°-60°	250.0	16.9
60°-70°	201.8	13.6
70°-80°	109.5	7.4
80°-90°	17.7	1.2
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°	386.5	26.1
0°-40°	636.1	43.0
0°-60°	1151.0	77.8
0°-90°	1480.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1480.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	496	496	496	496	496	
5°	496	494	491	494	493	47
15°	477	476	475	478	478	135
25°	442	441	442	447	448	204
35°	392	394	398	406	407	245
45°	327	332	342	355	360	252
55°	248	259	282	300	307	222
65°	161	180	213	230	235	159
75°	70	103	118	106	103	77
85°	13	14	8	7	6	16
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	495.7	495.7	495.7	495.7	495.7
2.5°	498.0	495.7	492.2	495.7	494.5
5°	495.7	494.5	491.1	494.5	493.4
7.5°	492.2	492.2	488.8	491.1	491.1
10°	488.8	487.6	485.3	488.8	487.6
12.5°	483.0	481.8	480.7	484.1	483.0
15°	477.2	476.0	474.9	478.4	478.4
17.5°	470.3	469.1	468.0	472.6	472.6
20°	461.0	461.0	461.0	465.6	464.5
22.5°	451.8	451.8	452.9	457.6	456.4
25°	442.5	441.4	442.5	447.2	448.3
27.5°	431.0	432.1	433.3	437.9	439.1
30°	419.4	420.6	421.7	427.5	428.7
32.5°	405.6	407.9	410.2	417.1	417.1
35°	391.7	394.0	397.5	405.6	406.7
37.5°	376.7	379.0	383.6	392.9	395.2
40°	360.5	364.0	370.9	380.1	383.6
42.5°	344.3	348.9	357.0	367.4	372.1
45°	327.0	331.6	342.0	354.7	360.5
47.5°	308.5	314.3	327.0	343.2	347.8
50°	288.9	297.0	312.0	329.3	335.1
52.5°	269.2	278.5	297.0	315.4	321.2
55°	248.4	258.8	281.9	300.4	307.4
57.5°	227.6	239.2	265.8	285.4	292.3
60°	205.7	219.5	248.4	268.1	273.8
62.5°	183.7	199.9	231.1	250.7	255.4
65°	160.6	180.3	212.6	229.9	234.6
67.5°	138.7	161.8	194.1	206.8	206.8
70°	115.5	141.0	173.3	176.8	169.9
72.5°	92.4	121.3	150.2	137.5	131.7
75°	70.5	102.8	117.9	106.3	102.8
77.5°	53.2	83.2	83.2	76.3	73.9
80°	37.0	63.5	55.5	48.5	45.1
82.5°	24.3	35.8	28.9	23.1	19.6
85°	12.7	13.9	8.1	6.9	5.8
87.5°	4.6	2.3	1.2	2.3	1.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)