

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: P312036

Luminaire Tested: **14FCZ2-25-UNV-L83050-RDP-CP250-W2A-U-3500K**

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: P312036
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-3500K
Description: 1'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT , 0.250" POLYCARB SHEET
Light Source: (168) 3500K 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: 1396.0 lumens
Efficiency: N/A
Efficacy: 71.2 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

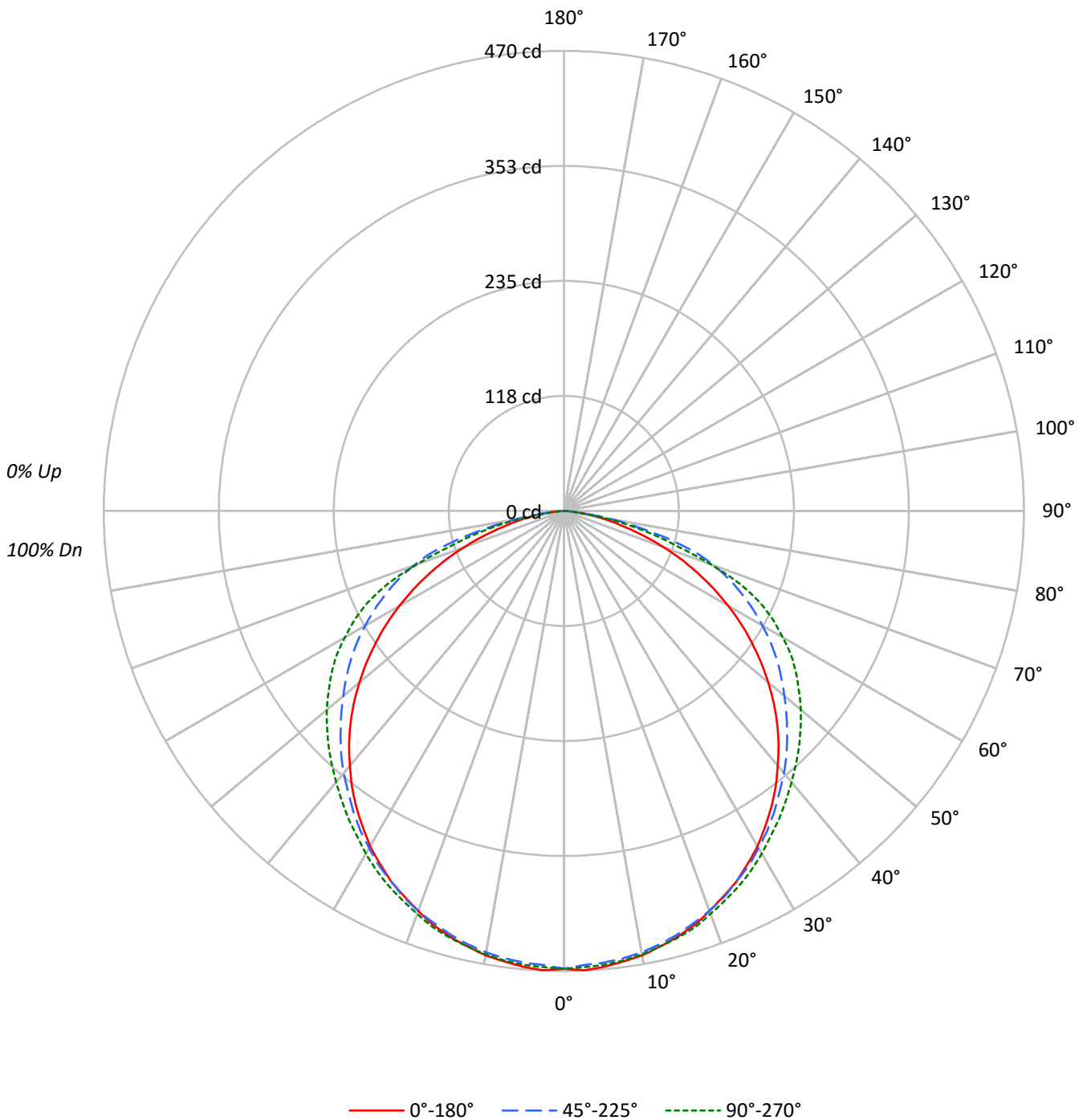
Input Watts (W): 19.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1258	1258	1258
5°	1263	1251	1257
10°	1260	1251	1257
15°	1254	1248	1257
20°	1245	1245	1255
25°	1239	1239	1256
30°	1229	1236	1256
35°	1214	1232	1260
40°	1194	1229	1271
45°	1174	1228	1294
50°	1141	1232	1323
55°	1099	1247	1360
60°	1044	1261	1390
65°	965	1277	1408
70°	858	1286	1260
75°	691	1156	1009
80°	541	810	659
85°	371	235	167



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	44.3	3.2
10°-20°	127.0	9.1
20°-30°	193.3	13.8
30°-40°	235.5	16.9
40°-50°	249.8	17.9
50°-60°	235.8	16.9
60°-70°	190.4	13.6
70°-80°	103.3	7.4
80°-90°	16.7	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°	364.6	26.1
0°-40°	600.0	43.0
0°-60°	1085.6	77.8
0°-90°	1396.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1396.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	468	468	468	468	468	
5°	468	466	463	466	465	44
15°	450	449	448	451	451	127
25°	417	416	417	422	423	192
35°	370	372	375	382	384	231
45°	308	313	323	335	340	238
55°	234	244	266	283	290	209
65°	152	170	200	217	221	150
75°	66	97	111	100	97	73
85°	12	13	8	6	5	15
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	467.6	467.6	467.6	467.6	467.6
2.5°	469.7	467.6	464.3	467.6	466.5
5°	467.6	466.5	463.2	466.5	465.4
7.5°	464.3	464.3	461.0	463.2	463.2
10°	461.0	459.9	457.7	461.0	459.9
12.5°	455.6	454.5	453.4	456.7	455.6
15°	450.1	449.0	447.9	451.2	451.2
17.5°	443.6	442.5	441.4	445.8	445.8
20°	434.9	434.9	434.9	439.2	438.1
22.5°	426.1	426.1	427.2	431.6	430.5
25°	417.4	416.3	417.4	421.8	422.9
27.5°	406.5	407.6	408.7	413.1	414.2
30°	395.6	396.7	397.8	403.3	404.3
32.5°	382.5	384.7	386.9	393.4	393.4
35°	369.5	371.6	374.9	382.5	383.6
37.5°	355.3	357.5	361.8	370.6	372.7
40°	340.0	343.3	349.8	358.6	361.8
42.5°	324.8	329.1	336.8	346.6	350.9
45°	308.4	312.8	322.6	334.6	340.0
47.5°	291.0	296.4	308.4	323.7	328.1
50°	272.5	280.1	294.3	310.6	316.1
52.5°	253.9	262.7	280.1	297.5	303.0
55°	234.3	244.1	265.9	283.4	289.9
57.5°	214.7	225.6	250.7	269.2	275.7
60°	194.0	207.1	234.3	252.9	258.3
62.5°	173.3	188.5	218.0	236.5	240.9
65°	151.5	170.0	200.5	216.9	221.2
67.5°	130.8	152.6	183.1	195.1	195.1
70°	109.0	133.0	163.5	166.8	160.2
72.5°	87.2	114.4	141.7	129.7	124.2
75°	66.5	97.0	111.2	100.3	97.0
77.5°	50.1	78.5	78.5	71.9	69.8
80°	34.9	59.9	52.3	45.8	42.5
82.5°	22.9	33.8	27.2	21.8	18.5
85°	12.0	13.1	7.6	6.5	5.4
87.5°	4.4	2.2	1.1	2.2	1.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)