

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: P312002

Luminaire Tested: **14FCZ2-20-UNV-L83050-RDP-CP125-W2A-U-4000K**

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: P312002
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: 14FCZ2-20-UNV-L83050-RDP-CP125-W2A-U-4000K
Description: 1'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT , 0.125" POLYCARB SHEET
Light Source: (168) 4000K 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: 1323.0 lumens
Efficiency: N/A
Efficacy: 78.3 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.29 / 1.4
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

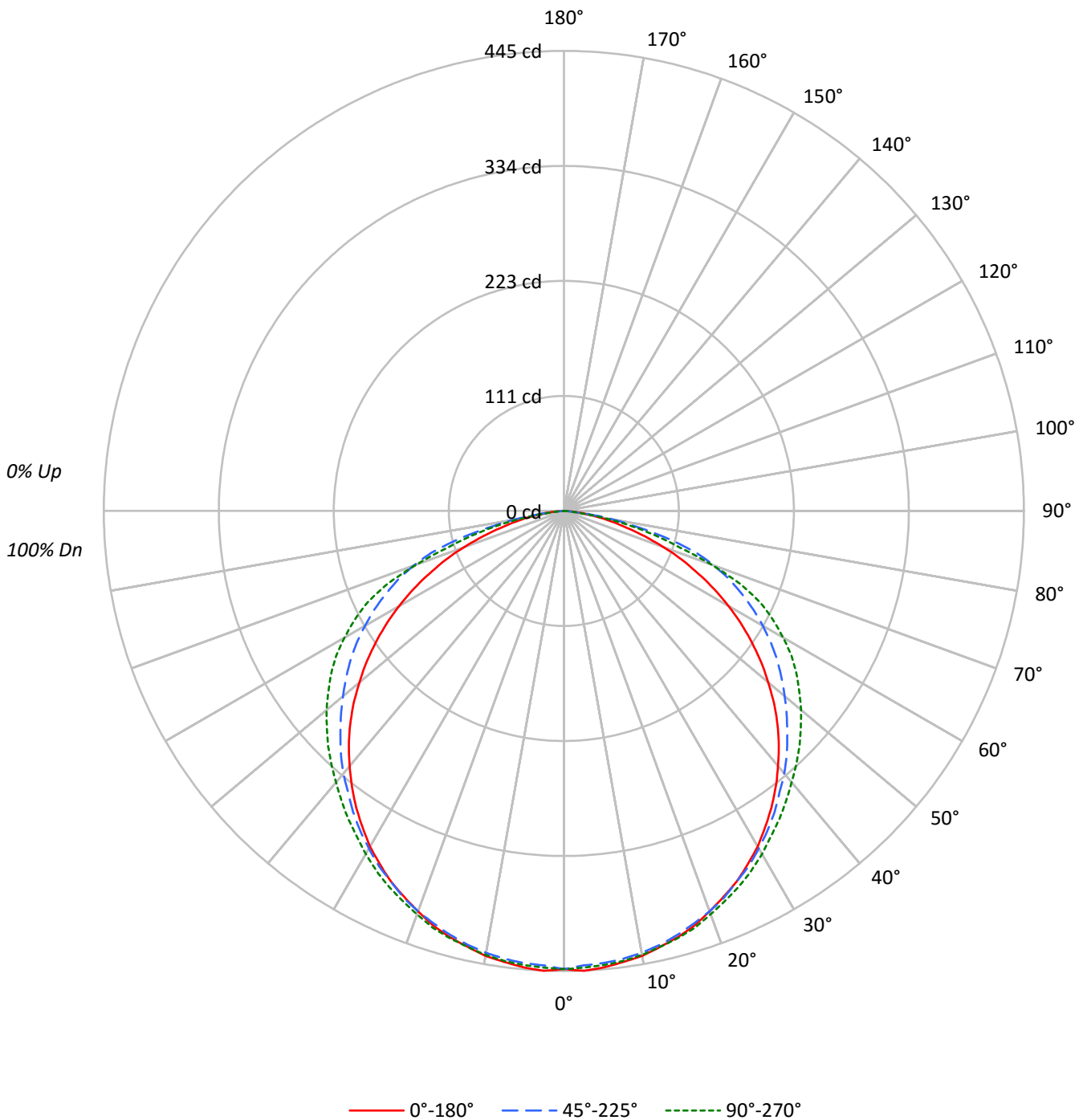
Input Watts (W): 16.9
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	1192	1192	1192
5°	1197	1186	1191
10°	1194	1185	1191
15°	1188	1183	1191
20°	1180	1180	1189
25°	1175	1175	1190
30°	1165	1171	1191
35°	1150	1167	1194
40°	1132	1165	1205
45°	1112	1163	1227
50°	1081	1168	1254
55°	1042	1182	1289
60°	990	1195	1318
65°	914	1210	1335
70°	813	1219	1194
75°	655	1096	955
80°	513	769	625
85°	352	222	161



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	41.9	3.2
10°-20°	120.3	9.1
20°-30°	183.2	13.8
30°-40°	223.2	16.9
40°-50°	236.8	17.9
50°-60°	223.5	16.9
60°-70°	180.4	13.6
70°-80°	97.9	7.4
80°-90°	15.8	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°	345.5	26.1
0°-40°	568.7	43.0
0°-60°	1028.9	77.8
0°-90°	1323.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1323.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	443	443	443	443	443	
5°	443	442	439	442	441	42
15°	427	426	424	428	428	120
25°	396	395	396	400	401	182
35°	350	352	355	362	364	219
45°	292	296	306	317	322	225
55°	222	231	252	268	275	198
65°	144	161	190	206	210	142
75°	63	92	105	95	92	69
85°	11	12	7	6	5	15
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	443.1	443.1	443.1	443.1	443.1
2.5°	445.2	443.1	440.0	443.1	442.1
5°	443.1	442.1	439.0	442.1	441.0
7.5°	440.0	440.0	436.9	439.0	439.0
10°	436.9	435.9	433.8	436.9	435.9
12.5°	431.7	430.7	429.7	432.8	431.7
15°	426.6	425.5	424.5	427.6	427.6
17.5°	420.4	419.4	418.3	422.4	422.4
20°	412.1	412.1	412.1	416.3	415.2
22.5°	403.9	403.9	404.9	409.0	408.0
25°	395.6	394.6	395.6	399.7	400.8
27.5°	385.3	386.3	387.3	391.5	392.5
30°	374.9	376.0	377.0	382.2	383.2
32.5°	362.5	364.6	366.7	372.9	372.9
35°	350.1	352.2	355.3	362.5	363.6
37.5°	336.7	338.8	342.9	351.2	353.2
40°	322.3	325.4	331.6	339.8	342.9
42.5°	307.8	311.9	319.2	328.5	332.6
45°	292.3	296.4	305.7	317.1	322.3
47.5°	275.8	280.9	292.3	306.8	310.9
50°	258.2	265.5	278.9	294.4	299.5
52.5°	240.7	248.9	265.5	282.0	287.1
55°	222.1	231.4	252.0	268.5	274.7
57.5°	203.5	213.8	237.6	255.1	261.3
60°	183.9	196.2	222.1	239.6	244.8
62.5°	164.2	178.7	206.6	224.1	228.3
65°	143.6	161.1	190.1	205.5	209.7
67.5°	123.9	144.6	173.5	184.9	184.9
70°	103.3	126.0	154.9	158.0	151.8
72.5°	82.6	108.5	134.3	122.9	117.7
75°	63.0	91.9	105.4	95.0	91.9
77.5°	47.5	74.4	74.4	68.2	66.1
80°	33.1	56.8	49.6	43.4	40.3
82.5°	21.7	32.0	25.8	20.7	17.6
85°	11.4	12.4	7.2	6.2	5.2
87.5°	4.1	2.1	1.0	2.1	1.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)