

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: P312253

Luminaire Tested: **14FCZ2-39-UNV-L83050-CP125-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: P312253
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: 14FCZ2-39-UNV-L83050-CP125-W2A-U-4500K
Description: 1'X4' TROFFER LED MODULE, RIBBED LENS, 0.125" 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: 3850.0 lumens
Efficiency: N/A
Efficacy: 110.3 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

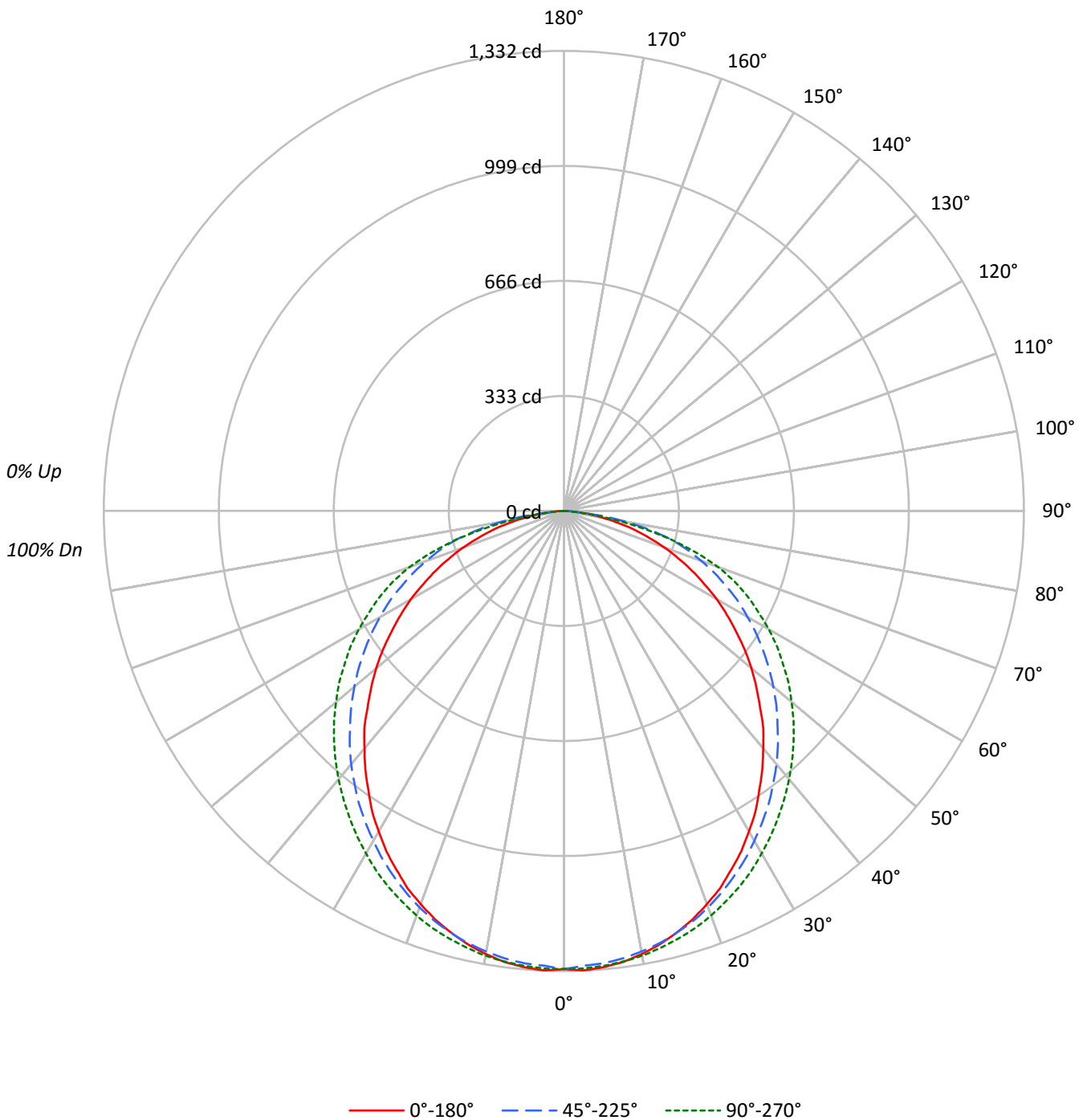
Input Watts (W): 34.9
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	3569	3569	3569
5°	3581	3550	3571
10°	3559	3540	3573
15°	3521	3523	3571
20°	3469	3498	3570
25°	3403	3464	3566
30°	3329	3428	3558
35°	3240	3398	3556
40°	3155	3366	3562
45°	3058	3329	3581
50°	2969	3314	3605
55°	2856	3302	3637
60°	2753	3308	3687
65°	2613	3318	3745
70°	2452	3343	3742
75°	2223	3374	3383
80°	1822	2913	2408
85°	1352	1377	556



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	125.5	3.3
10°-20°	358.5	9.3
20°-30°	540.1	14.0
30°-40°	648.1	16.8
40°-50°	675.5	17.5
50°-60°	625.4	16.2
60°-70°	505.3	13.1
70°-80°	308.1	8.0
80°-90°	63.6	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°	1024.1	26.6
0°-40°	1672.2	43.4
0°-60°	2973.1	77.2
0°-90°	3850.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3850.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1326	1326	1326	1326	1326	
5°	1326	1322	1314	1324	1322	126
15°	1264	1264	1264	1282	1282	356
25°	1146	1153	1167	1196	1201	528
35°	986	1002	1034	1072	1082	618
45°	804	828	875	924	941	621
55°	609	640	704	759	775	545
65°	410	451	521	574	588	406
75°	214	261	324	330	325	224
85°	44	65	45	25	18	54
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1326.3	1326.3	1326.3	1326.3	1326.3
2.5°	1331.5	1327.2	1317.8	1327.2	1325.5
5°	1325.5	1322.0	1314.3	1323.8	1322.0
7.5°	1316.9	1313.5	1306.6	1317.8	1316.0
10°	1302.3	1300.6	1295.4	1308.3	1307.5
12.5°	1285.1	1284.3	1281.7	1296.3	1295.4
15°	1263.7	1264.5	1264.5	1281.7	1281.7
17.5°	1239.6	1241.3	1244.8	1263.7	1266.2
20°	1211.3	1214.7	1221.6	1243.1	1246.5
22.5°	1182.1	1184.7	1195.0	1220.7	1224.2
25°	1146.1	1152.9	1166.7	1195.8	1201.0
27.5°	1111.7	1117.7	1136.6	1166.7	1175.2
30°	1071.4	1080.8	1103.1	1135.8	1145.2
32.5°	1032.7	1043.0	1068.8	1106.6	1115.2
35°	986.4	1001.8	1034.5	1072.2	1082.5
37.5°	944.3	958.9	995.8	1037.0	1049.1
40°	898.0	916.0	958.1	1001.8	1013.9
42.5°	855.0	872.2	917.7	962.3	978.7
45°	803.5	827.6	874.8	923.7	940.9
47.5°	756.3	780.4	834.4	886.8	902.3
50°	709.1	734.9	791.5	845.6	861.0
52.5°	660.2	687.6	748.6	802.7	820.7
55°	608.7	640.4	703.9	758.9	775.2
57.5°	559.7	592.3	660.2	716.0	732.3
60°	511.6	545.1	614.7	667.9	685.1
62.5°	458.4	497.9	570.0	622.4	635.3
65°	410.3	450.7	521.1	573.5	588.1
67.5°	359.7	403.5	473.9	522.0	535.7
70°	311.6	357.1	424.9	469.6	475.6
72.5°	260.1	306.5	375.2	403.5	403.5
75°	213.8	261.0	324.5	329.7	325.4
77.5°	163.1	215.5	256.7	246.4	236.1
80°	117.6	169.1	188.0	169.1	155.4
82.5°	79.0	122.8	113.3	90.1	79.8
85°	43.8	65.2	44.6	24.9	18.0
87.5°	16.3	14.6	4.3	4.3	4.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)