

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: P312263

Luminaire Tested: **14FCZ2-39-UNV-L83050-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: P312263
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-CP250-W2A-U-4500K
Description: 1'X4' TROFFER LED MODULE,RIBBED LENS, 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: 3657.0 lumens
Efficiency: N/A
Efficacy: 104.8 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

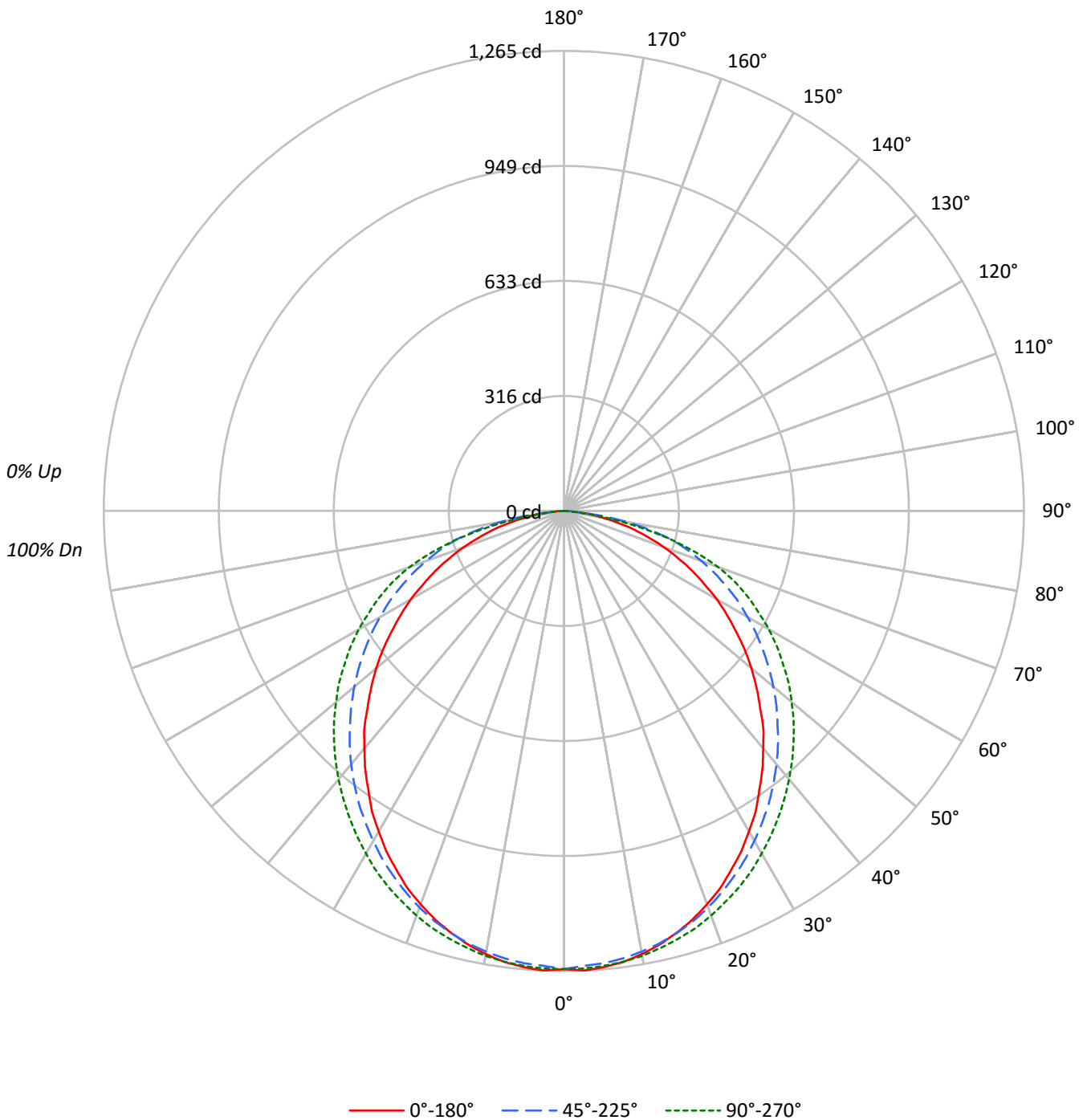
Input Watts (W): 34.9
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3390	3390	3390
5°	3401	3372	3392
10°	3380	3362	3393
15°	3344	3346	3392
20°	3295	3323	3391
25°	3232	3290	3387
30°	3162	3256	3380
35°	3078	3228	3378
40°	2996	3197	3383
45°	2904	3162	3401
50°	2820	3147	3424
55°	2712	3137	3454
60°	2616	3143	3502
65°	2482	3152	3557
70°	2329	3175	3555
75°	2111	3204	3214
80°	1731	2768	2287
85°	1284	1309	528



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	119.2	3.3
10°-20°	340.5	9.3
20°-30°	513.0	14.0
30°-40°	615.6	16.8
40°-50°	641.6	17.5
50°-60°	594.0	16.2
60°-70°	479.9	13.1
70°-80°	292.6	8.0
80°-90°	60.4	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°	972.8	26.6
0°-40°	1588.4	43.4
0°-60°	2824.0	77.2
0°-90°	3657.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3657.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1260	1260	1260	1260	1260	
5°	1259	1256	1248	1257	1256	120
15°	1200	1201	1201	1217	1217	338
25°	1089	1095	1108	1136	1141	502
35°	937	952	983	1018	1028	587
45°	763	786	831	877	894	590
55°	578	608	669	721	736	518
65°	390	428	495	545	559	385
75°	203	248	308	313	309	213
85°	42	62	42	24	17	51
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1259.8	1259.8	1259.8	1259.8	1259.8
2.5°	1264.7	1260.7	1251.7	1260.7	1259.0
5°	1259.0	1255.8	1248.4	1257.4	1255.8
7.5°	1250.9	1247.6	1241.1	1251.7	1250.1
10°	1237.0	1235.4	1230.5	1242.7	1241.9
12.5°	1220.7	1219.9	1217.4	1231.3	1230.5
15°	1200.3	1201.1	1201.1	1217.4	1217.4
17.5°	1177.5	1179.1	1182.4	1200.3	1202.8
20°	1150.6	1153.8	1160.4	1180.8	1184.0
22.5°	1122.9	1125.3	1135.1	1159.5	1162.8
25°	1088.6	1095.1	1108.2	1135.9	1140.8
27.5°	1056.0	1061.7	1079.6	1108.2	1116.3
30°	1017.7	1026.6	1047.8	1078.8	1087.8
32.5°	981.0	990.8	1015.2	1051.1	1059.3
35°	936.9	951.6	982.6	1018.5	1028.3
37.5°	897.0	910.8	945.9	985.0	996.5
40°	852.9	870.1	910.0	951.6	963.0
42.5°	812.2	828.5	871.7	914.1	929.6
45°	763.2	786.1	830.9	877.4	893.7
47.5°	718.4	741.2	792.6	842.3	857.0
50°	673.6	698.0	751.8	803.2	817.9
52.5°	627.1	653.2	711.1	762.4	779.6
55°	578.1	608.3	668.7	720.8	736.3
57.5°	531.7	562.7	627.1	680.1	695.6
60°	486.0	517.8	583.9	634.4	650.7
62.5°	435.4	473.0	541.4	591.2	603.4
65°	389.8	428.1	495.0	544.7	558.6
67.5°	341.7	383.3	450.1	495.8	508.8
70°	296.0	339.2	403.6	446.0	451.8
72.5°	247.1	291.1	356.3	383.3	383.3
75°	203.0	247.9	308.2	313.1	309.1
77.5°	154.9	204.7	243.8	234.0	224.2
80°	111.7	160.6	178.6	160.6	147.6
82.5°	75.0	116.6	107.6	85.6	75.8
85°	41.6	62.0	42.4	23.6	17.1
87.5°	15.5	13.9	4.1	4.1	4.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)