

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: P313526

Luminaire Tested: **24FCZ2-40HE-UNV-L83050-RDP-CP125-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: P313526
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-19)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 24FCZ2-40HE-UNV-L83050-RDP-CP125-W2A-U-3500K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" POLYCARB SHEET
Light Source: (336) 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: 2447.0 lumens
Efficiency: N/A
Efficacy: 80.5 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

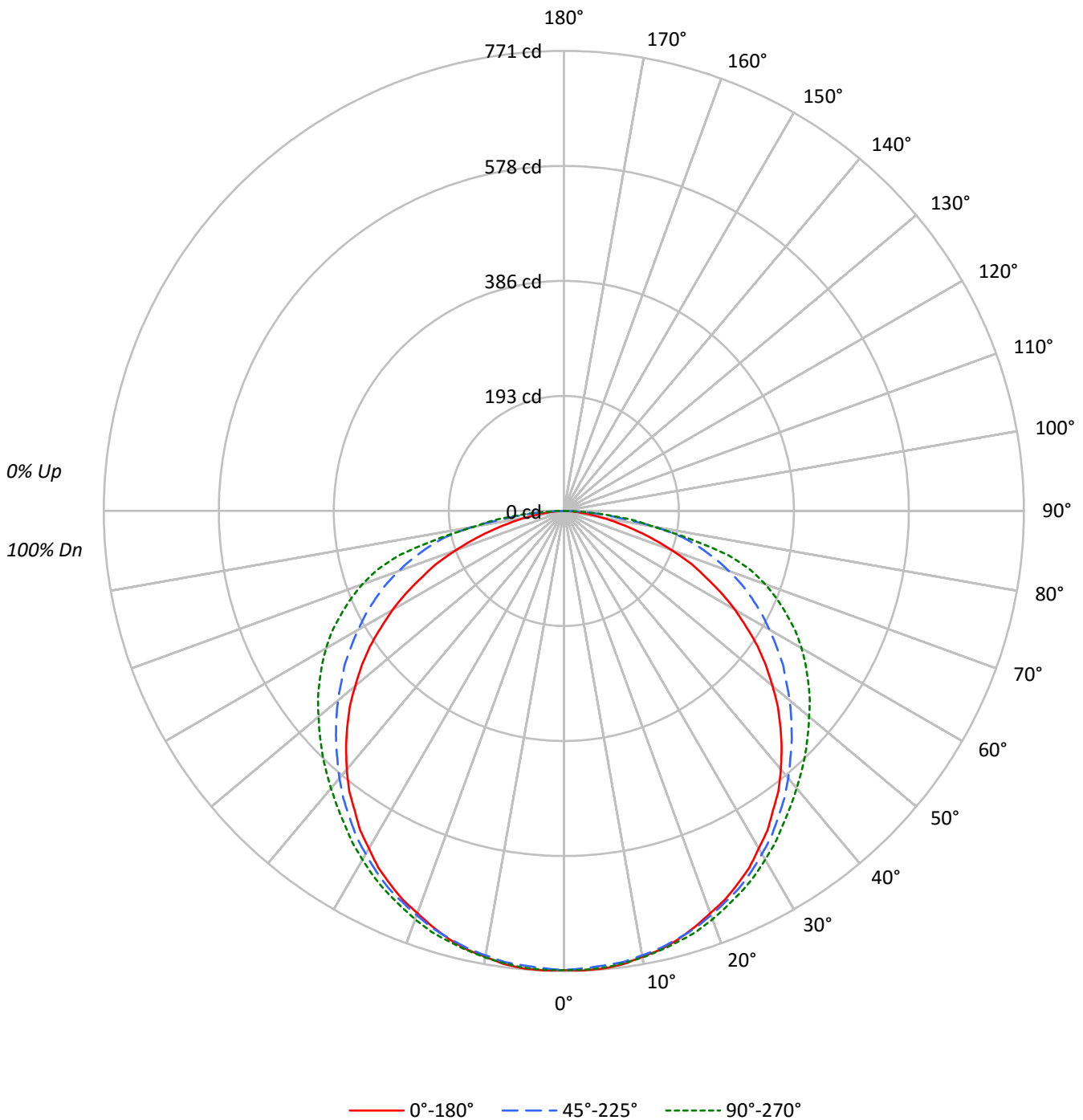
Input Watts (W): 30.4
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	108	103	98	94	105	100	96	92	96	93	89	92	89	87	88	86	84	82
2	97	89	81	75	95	87	80	74	83	77	72	80	75	71	77	73	69	67
3	88	77	68	62	86	76	67	61	72	66	60	70	64	59	67	62	58	56
4	81	68	59	52	78	67	58	51	64	57	51	62	55	50	59	54	49	47
5	74	60	51	44	72	59	51	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	45	38	51	44	38	50	43	37	48	42	37	35
7	63	49	40	34	61	48	40	34	47	39	33	45	38	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	41	34	29	40	34	29	27
9	55	41	33	27	53	40	32	27	39	32	27	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1035	1035	1035
5°	1039	1033	1038
10°	1036	1033	1038
15°	1035	1033	1040
20°	1027	1032	1043
25°	1023	1034	1045
30°	1015	1031	1048
35°	1005	1029	1053
40°	993	1028	1066
45°	977	1028	1090
50°	955	1034	1123
55°	931	1051	1173
60°	892	1071	1238
65°	835	1109	1314
70°	759	1160	1413
75°	644	1224	1476
80°	508	1232	1194
85°	375	937	1050



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	73.0	3.0
10°-20°	210.1	8.6
20°-30°	321.3	13.1
30°-40°	392.7	16.0
40°-50°	418.6	17.1
50°-60°	400.2	16.4
60°-70°	339.0	13.9
70°-80°	227.8	9.3
80°-90°	64.3	2.6
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°	604.3	24.7
0°-40°	997.1	40.7
0°-60°	1815.8	74.2
0°-90°	2447.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2447.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	770	770	770	770	770	
5°	770	768	765	768	768	73
15°	743	743	742	748	746	209
25°	689	692	697	703	704	318
35°	612	617	626	638	641	383
45°	513	522	540	563	573	396
55°	397	412	448	483	500	353
65°	262	289	348	394	413	260
75°	124	169	236	276	284	133
85°	24	50	61	66	68	30
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	769.5	769.5	769.5	769.5	769.5
2.5°	770.7	770.7	767.1	769.5	769.5
5°	769.5	768.3	764.7	768.3	768.3
7.5°	765.9	764.7	762.2	765.9	764.7
10°	758.6	758.6	756.2	759.8	759.8
12.5°	752.5	751.3	750.1	754.9	753.7
15°	742.8	742.8	741.6	747.7	746.5
17.5°	730.7	731.9	733.1	738.0	739.2
20°	717.3	719.7	721.0	728.2	728.2
22.5°	705.2	706.4	708.8	716.1	716.1
25°	689.4	691.8	696.7	702.8	704.0
27.5°	673.6	674.8	680.9	689.4	690.6
30°	653.0	656.6	663.9	673.6	674.8
32.5°	634.8	638.4	646.9	656.6	659.1
35°	611.7	616.6	626.3	638.4	640.9
37.5°	591.1	594.7	606.9	620.2	623.9
40°	565.6	572.9	585.0	600.8	606.9
42.5°	540.1	547.4	562.0	582.6	589.9
45°	513.4	521.9	540.1	563.2	572.9
47.5°	486.7	496.4	517.1	543.8	554.7
50°	456.4	468.5	494.0	524.3	536.5
52.5°	427.2	441.8	469.7	503.7	519.5
55°	396.9	411.5	447.9	483.1	500.1
57.5°	362.9	382.3	422.4	462.4	480.6
60°	331.4	349.6	398.1	441.8	460.0
62.5°	297.4	321.6	373.8	420.0	438.2
65°	262.2	288.9	348.3	394.5	412.7
67.5°	230.6	259.7	322.9	369.0	387.2
70°	193.0	229.4	294.9	341.1	359.3
72.5°	157.8	197.8	265.8	310.7	327.7
75°	123.8	168.7	235.5	275.5	284.0
77.5°	92.2	139.6	203.9	220.9	214.8
80°	65.5	111.7	159.0	150.5	154.1
82.5°	42.5	85.0	98.3	111.7	115.3
85°	24.3	49.8	60.7	65.5	68.0
87.5°	10.9	18.2	24.3	24.3	23.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)