

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: P313577

Luminaire Tested: **24FCZ2-45HE-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: P313577
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: 24FCZ2-45HE-UNV-L83050-RDP-CP125-W2A-U-4000K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" POLYCARB SHEET
Light Source: (336) 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: 2829.0 lumens
Efficiency: N/A
Efficacy: 81.8 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

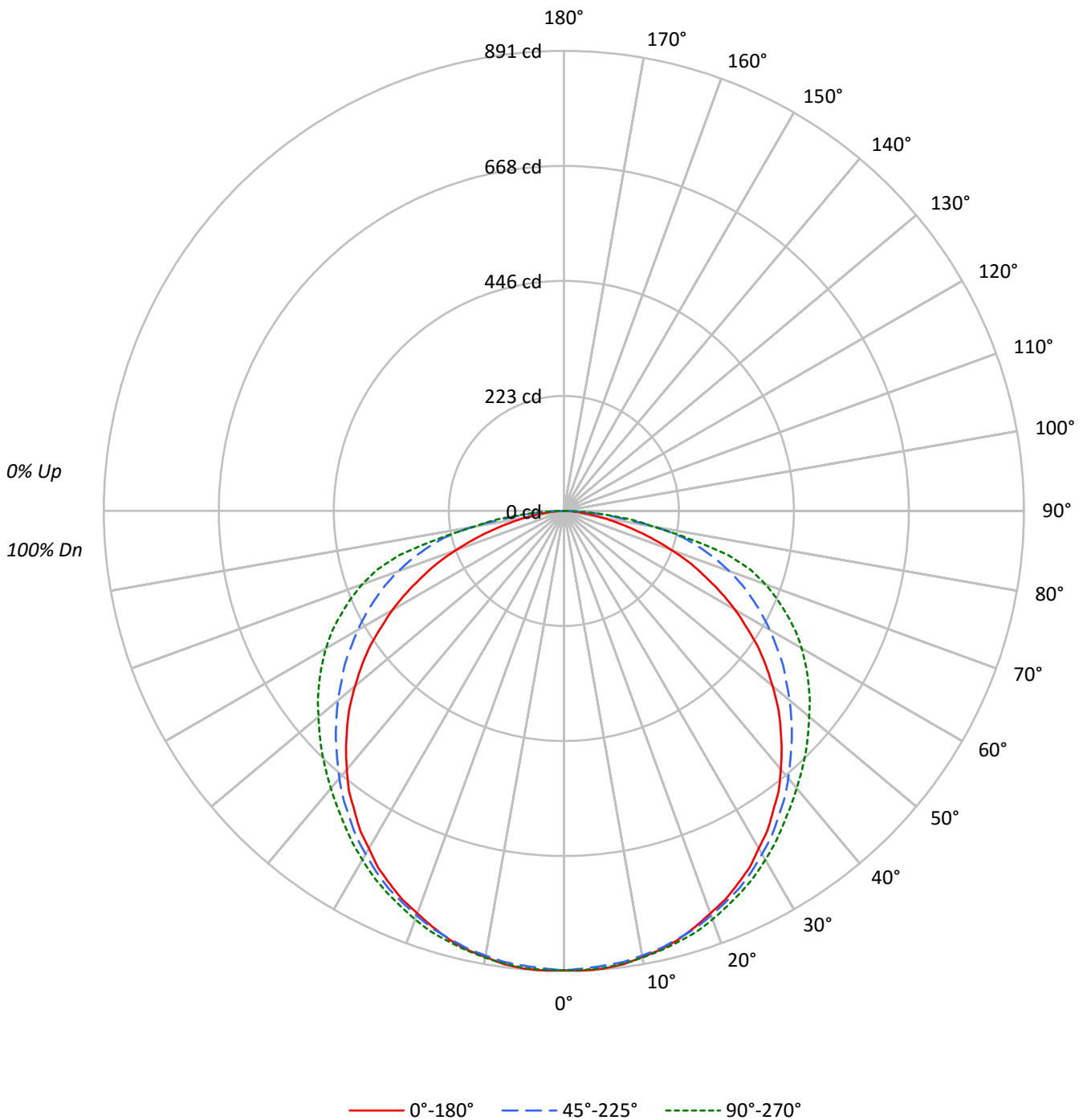
Input Watts (W): 34.6
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1197	1197	1197
5°	1202	1194	1200
10°	1198	1194	1200
15°	1196	1194	1202
20°	1187	1193	1205
25°	1183	1196	1208
30°	1173	1193	1212
35°	1162	1189	1217
40°	1149	1188	1232
45°	1130	1188	1260
50°	1104	1195	1298
55°	1076	1215	1356
60°	1031	1239	1431
65°	965	1282	1519
70°	878	1341	1634
75°	744	1415	1707
80°	587	1424	1381
85°	434	1084	1213



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	84.4	3.0
10°-20°	242.9	8.6
20°-30°	371.4	13.1
30°-40°	454.0	16.0
40°-50°	483.9	17.1
50°-60°	462.7	16.4
60°-70°	392.0	13.9
70°-80°	263.4	9.3
80°-90°	74.3	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°	698.7	24.7
0°-40°	1152.7	40.7
0°-60°	2099.3	74.2
0°-90°	2829.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2829.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	890	890	890	890	890	
5°	890	888	884	888	888	85
15°	859	859	857	864	863	242
25°	797	800	805	812	814	367
35°	707	713	724	738	741	443
45°	594	603	624	651	662	458
55°	459	476	518	558	578	409
65°	303	334	403	456	477	301
75°	143	195	272	318	328	153
85°	28	58	70	76	79	35
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	889.6	889.6	889.6	889.6	889.6
2.5°	891.0	891.0	886.8	889.6	889.6
5°	889.6	888.2	884.0	888.2	888.2
7.5°	885.4	884.0	881.2	885.4	884.0
10°	877.0	877.0	874.2	878.4	878.4
12.5°	870.0	868.6	867.2	872.8	871.4
15°	858.8	858.8	857.4	864.4	863.0
17.5°	844.7	846.1	847.5	853.2	854.6
20°	829.3	832.1	833.5	841.9	841.9
22.5°	815.3	816.7	819.5	827.9	827.9
25°	797.0	799.8	805.4	812.5	813.9
27.5°	778.8	780.2	787.2	797.0	798.4
30°	754.9	759.1	767.6	778.8	780.2
32.5°	733.9	738.1	747.9	759.1	761.9
35°	707.2	712.8	724.1	738.1	740.9
37.5°	683.4	687.6	701.6	717.0	721.3
40°	653.9	662.3	676.4	694.6	701.6
42.5°	624.4	632.9	649.7	673.5	682.0
45°	593.6	603.4	624.4	651.1	662.3
47.5°	562.7	573.9	597.8	628.6	641.3
50°	527.6	541.6	571.1	606.2	620.2
52.5°	493.9	510.8	543.0	582.3	600.6
55°	458.9	475.7	517.8	558.5	578.1
57.5°	419.6	442.0	488.3	534.6	555.7
60°	383.1	404.1	460.3	510.8	531.8
62.5°	343.8	371.9	432.2	485.5	506.6
65°	303.1	334.0	402.7	456.0	477.1
67.5°	266.6	300.3	373.3	426.6	447.6
70°	223.1	265.2	341.0	394.3	415.4
72.5°	182.4	228.7	307.3	359.2	378.9
75°	143.1	195.0	272.2	318.5	328.4
77.5°	106.6	161.4	235.7	255.4	248.4
80°	75.8	129.1	183.8	174.0	178.2
82.5°	49.1	98.2	113.7	129.1	133.3
85°	28.1	57.5	70.2	75.8	78.6
87.5°	12.6	21.0	28.1	28.1	26.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)