

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: P309339

Luminaire Tested: **24FCZ2-40HE-UNV-L82765-HRP-CP125-W2A-U-3000K**

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: P309339
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-20)
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-L82765-HRP-CP125-W2A-U-3000K
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" POLYCARB SHEET
Light Source: (336) 3000K 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: 2606.0 lumens
Efficiency: N/A
Efficacy: 86.3 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.3 / 1.4
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

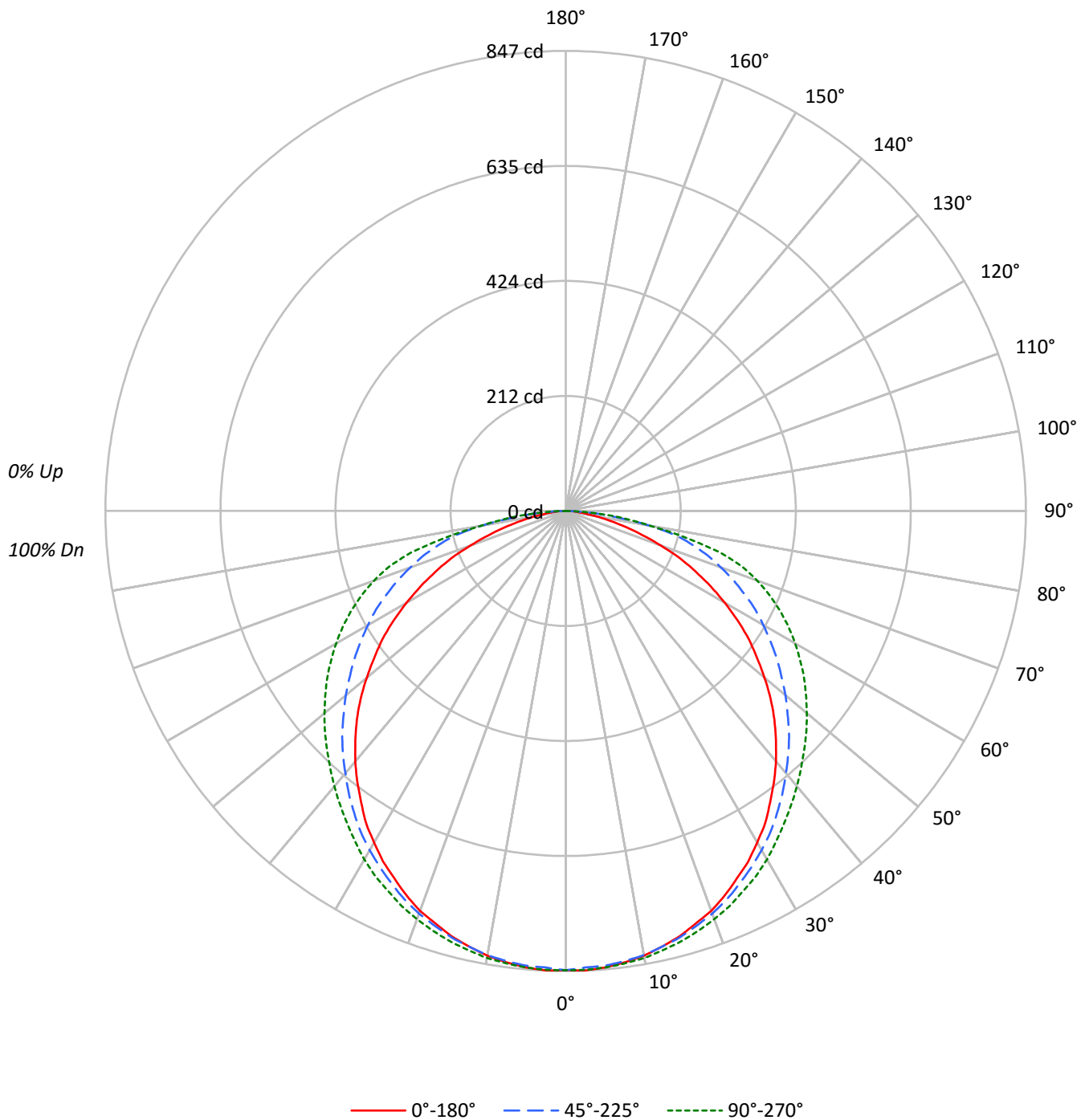
Input Watts (W): 30.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				0
RW	70	50	30	10	70	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		100
1	108	103	98	94	105	101	96	93	96	93	90		92	90	87		82
2	98	89	82	76	95	87	80	75	83	78	73		80	75	71		67
3	89	78	69	62	86	76	68	62	73	66	61		70	64	59		56
4	81	68	59	52	79	67	59	52	65	57	51		62	56	50		48
5	74	61	52	45	72	60	51	45	58	50	44		56	49	44		41
6	69	55	46	39	67	54	45	39	52	44	38		50	43	38		36
7	63	50	41	34	62	49	40	34	47	39	34		46	39	34		31
8	59	45	36	30	57	44	36	30	43	36	30		42	35	30		28
9	55	41	33	27	54	41	33	27	40	32	27		39	32	27		25
10	52	38	30	25	50	38	30	25	37	30	25		36	29	24		23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1138	1138	1138
5°	1139	1135	1139
10°	1136	1134	1142
15°	1129	1132	1143
20°	1122	1129	1145
25°	1108	1124	1147
30°	1095	1120	1151
35°	1077	1115	1152
40°	1058	1108	1163
45°	1034	1106	1181
50°	1000	1105	1213
55°	965	1113	1257
60°	910	1130	1312
65°	840	1157	1386
70°	734	1197	1476
75°	596	1259	1526
80°	439	1234	1234
85°	337	909	1028



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	80.1	3.1
10°-20°	230.0	8.8
20°-30°	350.2	13.4
30°-40°	425.2	16.3
40°-50°	449.2	17.2
50°-60°	423.9	16.3
60°-70°	352.4	13.5
70°-80°	231.9	8.9
80°-90°	63.2	2.4
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°	660.3	25.3
0°-40°	1085.4	41.7
0°-60°	1958.5	75.2
0°-90°	2606.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2606.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	846	846	846	846	846	
5°	843	843	840	843	843	80
15°	811	812	813	820	820	229
25°	746	751	757	770	772	344
35°	656	663	679	696	702	410
45°	543	554	582	610	621	418
55°	411	429	475	519	536	366
65°	264	295	363	417	435	261
75°	115	167	242	287	294	123
85°	22	48	59	66	67	27
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	845.5	845.5	845.5	845.5	845.5
2.5°	846.6	845.5	841.2	845.5	845.5
5°	843.3	843.3	840.1	843.3	843.3
7.5°	837.9	837.9	835.7	840.1	840.1
10°	831.3	831.3	830.2	835.7	835.7
12.5°	821.5	822.6	821.5	828.1	828.1
15°	810.6	811.7	812.8	820.4	820.4
17.5°	796.4	798.6	800.8	809.5	810.6
20°	783.3	784.4	788.8	798.6	799.7
22.5°	765.9	769.1	774.6	784.4	787.7
25°	746.2	750.6	757.1	770.2	772.4
27.5°	727.7	731.0	739.7	753.9	758.2
30°	704.8	710.2	721.1	735.3	740.8
32.5°	683.0	688.4	701.5	716.8	721.1
35°	655.7	663.3	678.6	696.1	701.5
37.5°	629.5	637.1	655.7	675.3	681.9
40°	602.2	611.0	630.6	653.5	662.2
42.5°	572.8	584.8	606.6	631.7	641.5
45°	543.3	554.2	581.5	609.9	620.8
47.5°	511.7	524.8	554.2	588.0	601.1
50°	477.9	494.2	528.0	565.1	579.3
52.5°	444.0	462.6	500.8	542.2	557.5
55°	411.3	428.8	474.6	519.3	535.7
57.5°	375.3	397.1	447.3	495.3	511.7
60°	338.2	362.2	420.0	470.2	487.7
62.5°	301.1	328.4	393.8	444.0	462.6
65°	264.0	294.6	363.3	416.8	435.3
67.5°	228.0	261.8	334.9	388.4	406.9
70°	186.6	229.1	304.4	356.8	375.3
72.5°	148.4	197.5	274.9	324.0	340.4
75°	114.6	166.9	242.2	286.9	293.5
77.5°	84.0	136.4	208.4	223.7	224.7
80°	56.7	109.1	159.3	157.1	159.3
82.5°	37.1	81.8	100.4	112.4	113.5
85°	21.8	48.0	58.9	65.5	66.6
87.5°	10.9	16.4	20.7	21.8	24.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)