

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: P309924

Luminaire Tested: **24FCZ2-35HE-UNV-L82765-RDP-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: P309924
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: 24FCZ2-35HE-UNV-L82765-RDP-CP125-W2A-U-3000K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 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: 1996.0 lumens
Efficiency: N/A
Efficacy: 77.4 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

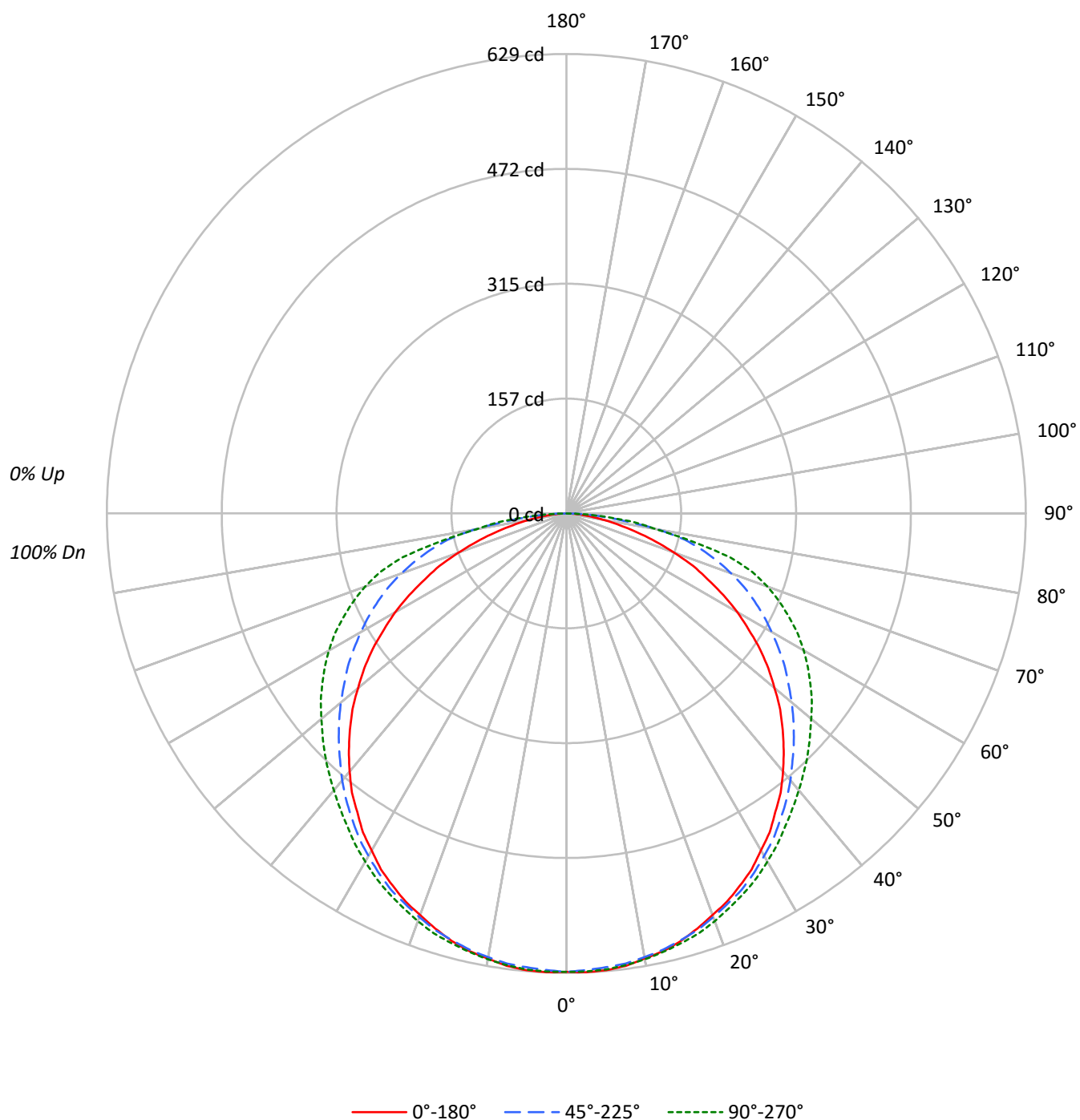
Input Watts (W): 25.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	845	845	845
5°	848	842	846
10°	845	843	847
15°	844	843	848
20°	838	842	851
25°	835	844	852
30°	827	841	855
35°	820	839	859
40°	810	838	869
45°	797	838	889
50°	779	843	916
55°	759	857	957
60°	727	874	1010
65°	681	904	1072
70°	619	947	1153
75°	525	999	1205
80°	415	1005	974
85°	306	764	855



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	59.5	3.0
10°-20°	171.4	8.6
20°-30°	262.0	13.1
30°-40°	320.4	16.0
40°-50°	341.4	17.1
50°-60°	326.4	16.4
60°-70°	276.5	13.9
70°-80°	185.9	9.3
80°-90°	52.4	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°	492.9	24.7
0°-40°	813.3	40.7
0°-60°	1481.2	74.2
0°-90°	1996.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1996.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	628	628	628	628	628	
5°	628	627	624	627	627	60
15°	606	606	605	610	609	171
25°	562	564	568	573	574	259
35°	499	503	511	521	523	313
45°	419	426	441	459	467	323
55°	324	336	365	394	408	288
65°	214	236	284	322	337	212
75°	101	138	192	225	232	108
85°	20	41	50	54	55	25
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	627.7	627.7	627.7	627.7	627.7
2.5°	628.7	628.7	625.7	627.7	627.7
5°	627.7	626.7	623.7	626.7	626.7
7.5°	624.7	623.7	621.7	624.7	623.7
10°	618.8	618.8	616.8	619.8	619.8
12.5°	613.8	612.8	611.8	615.8	614.8
15°	605.9	605.9	604.9	609.9	608.9
17.5°	596.0	597.0	598.0	601.9	602.9
20°	585.1	587.1	588.1	594.0	594.0
22.5°	575.2	576.2	578.2	584.1	584.1
25°	562.3	564.3	568.3	573.2	574.2
27.5°	549.5	550.5	555.4	562.3	563.3
30°	532.6	535.6	541.6	549.5	550.5
32.5°	517.8	520.8	527.7	535.6	537.6
35°	499.0	502.9	510.9	520.8	522.7
37.5°	482.1	485.1	495.0	505.9	508.9
40°	461.4	467.3	477.2	490.1	495.0
42.5°	440.6	446.5	458.4	475.2	481.2
45°	418.8	425.7	440.6	459.4	467.3
47.5°	397.0	404.9	421.8	443.5	452.4
50°	372.3	382.2	402.9	427.7	437.6
52.5°	348.5	360.4	383.1	410.9	423.7
55°	323.7	335.6	365.3	394.0	407.9
57.5°	296.0	311.9	344.5	377.2	392.1
60°	270.3	285.1	324.7	360.4	375.2
62.5°	242.6	262.4	304.9	342.6	357.4
65°	213.8	235.6	284.1	321.8	336.6
67.5°	188.1	211.9	263.4	301.0	315.8
70°	157.4	187.1	240.6	278.2	293.1
72.5°	128.7	161.4	216.8	253.5	267.3
75°	101.0	137.6	192.1	224.7	231.7
77.5°	75.2	113.9	166.3	180.2	175.2
80°	53.5	91.1	129.7	122.8	125.7
82.5°	34.7	69.3	80.2	91.1	94.1
85°	19.8	40.6	49.5	53.5	55.4
87.5°	8.9	14.9	19.8	19.8	18.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)