

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: P310287

Luminaire Tested: **24FCZ2-55HE-UNV-L82765-RDP-CP125-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: P310287
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: 24FCZ2-55HE-UNV-L82765-RDP-CP125-W2A-U-4500K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" POLYCARB SHEET
Light Source: (336) 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: 3387.0 lumens
Efficiency: N/A
Efficacy: 77.2 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

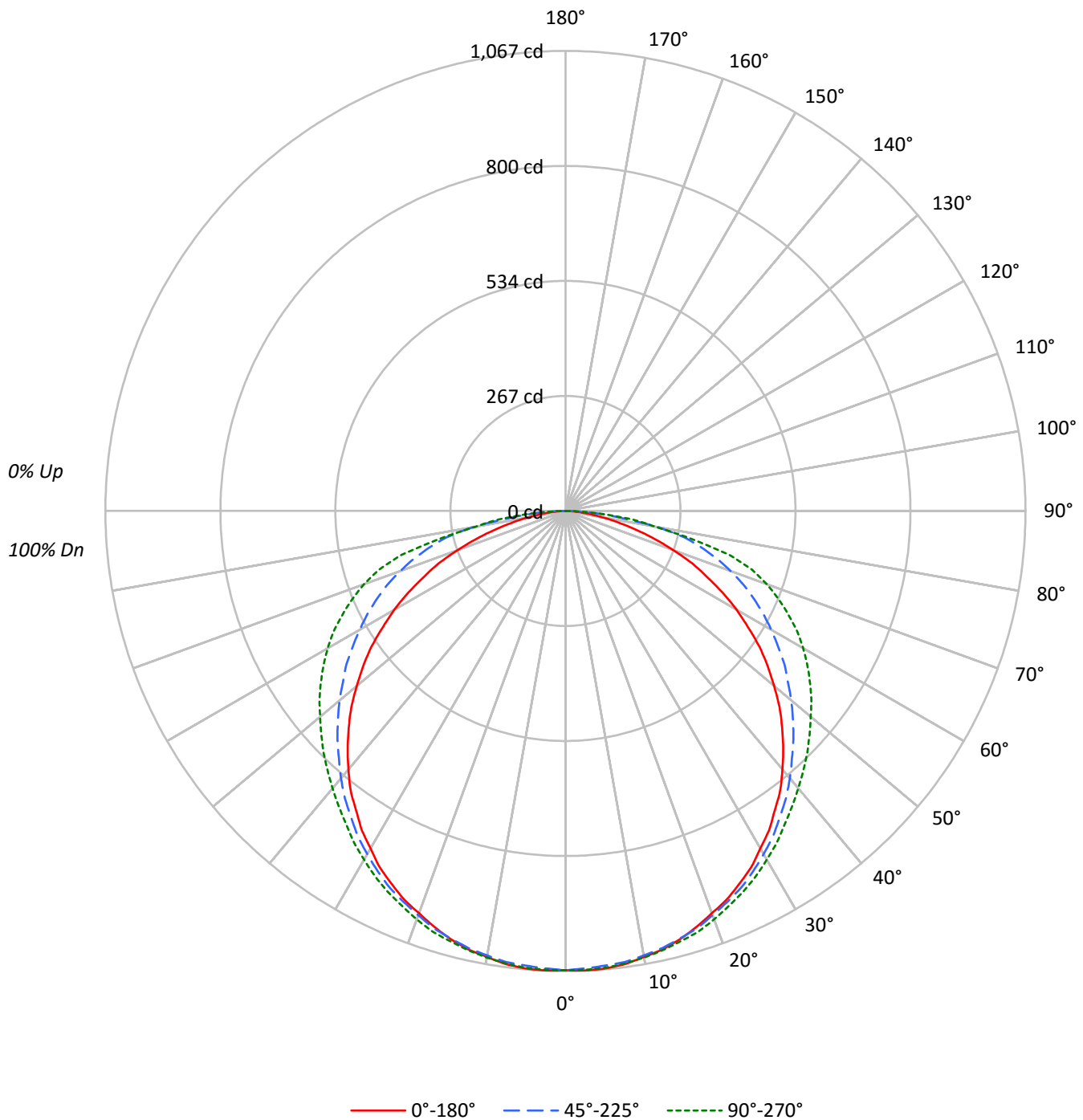
Input Watts (W): 43.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1433	1433	1433
5°	1439	1430	1436
10°	1435	1430	1437
15°	1432	1430	1439
20°	1422	1429	1443
25°	1417	1432	1447
30°	1404	1428	1451
35°	1391	1424	1457
40°	1375	1422	1475
45°	1352	1423	1509
50°	1322	1431	1554
55°	1289	1454	1624
60°	1234	1483	1713
65°	1155	1535	1819
70°	1051	1606	1956
75°	891	1694	2044
80°	703	1705	1654
85°	519	1297	1453



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	101.0	3.0
10°-20°	290.8	8.6
20°-30°	444.7	13.1
30°-40°	543.6	16.0
40°-50°	579.4	17.1
50°-60°	553.9	16.4
60°-70°	469.3	13.9
70°-80°	315.4	9.3
80°-90°	89.0	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°	836.5	24.7
0°-40°	1380.1	40.7
0°-60°	2513.4	74.2
0°-90°	3387.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3387.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1065	1065	1065	1065	1065	
5°	1065	1063	1058	1063	1063	101
15°	1028	1028	1026	1035	1033	290
25°	954	958	964	973	974	440
35°	847	853	867	884	887	530
45°	711	722	748	780	793	548
55°	549	570	620	669	692	489
65°	363	400	482	546	571	360
75°	171	234	326	381	393	183
85°	34	69	84	91	94	42
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1065.1	1065.1	1065.1	1065.1	1065.1
2.5°	1066.8	1066.8	1061.8	1065.1	1065.1
5°	1065.1	1063.4	1058.4	1063.4	1063.4
7.5°	1060.1	1058.4	1055.0	1060.1	1058.4
10°	1050.0	1050.0	1046.6	1051.7	1051.7
12.5°	1041.6	1039.9	1038.2	1045.0	1043.3
15°	1028.2	1028.2	1026.5	1034.9	1033.2
17.5°	1011.4	1013.0	1014.7	1021.4	1023.1
20°	992.9	996.2	997.9	1008.0	1008.0
22.5°	976.1	977.8	981.1	991.2	991.2
25°	954.2	957.6	964.3	972.7	974.4
27.5°	932.4	934.1	942.5	954.2	955.9
30°	903.8	908.9	919.0	932.4	934.1
32.5°	878.6	883.7	895.4	908.9	912.2
35°	846.7	853.4	866.9	883.7	887.0
37.5°	818.2	823.2	840.0	858.5	863.5
40°	782.9	793.0	809.8	831.6	840.0
42.5°	747.6	757.7	777.8	806.4	816.5
45°	710.6	722.4	747.6	779.5	793.0
47.5°	673.7	687.1	715.7	752.6	767.8
50°	631.7	648.5	683.8	725.8	742.6
52.5°	591.4	611.5	650.2	697.2	719.0
55°	549.4	569.5	619.9	668.6	692.2
57.5°	502.3	529.2	584.6	640.1	665.3
60°	458.6	483.8	551.0	611.5	636.7
62.5°	411.6	445.2	517.4	581.3	606.5
65°	362.9	399.8	482.2	546.0	571.2
67.5°	319.2	359.5	446.9	510.7	535.9
70°	267.1	317.5	408.2	472.1	497.3
72.5°	218.4	273.8	367.9	430.1	453.6
75°	171.4	233.5	325.9	381.4	393.1
77.5°	127.7	193.2	282.2	305.8	297.4
80°	90.7	154.6	220.1	208.3	213.4
82.5°	58.8	117.6	136.1	154.6	159.6
85°	33.6	68.9	84.0	90.7	94.1
87.5°	15.1	25.2	33.6	33.6	31.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)