

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: P310291

Luminaire Tested: **24FCZ2-55HE-UNV-L82765-RDP-CP125-W2A-U-6500K**

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: P310291
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-6500K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" POLYCARB SHEET
Light Source: (336) 6500K 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: 3485.0 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

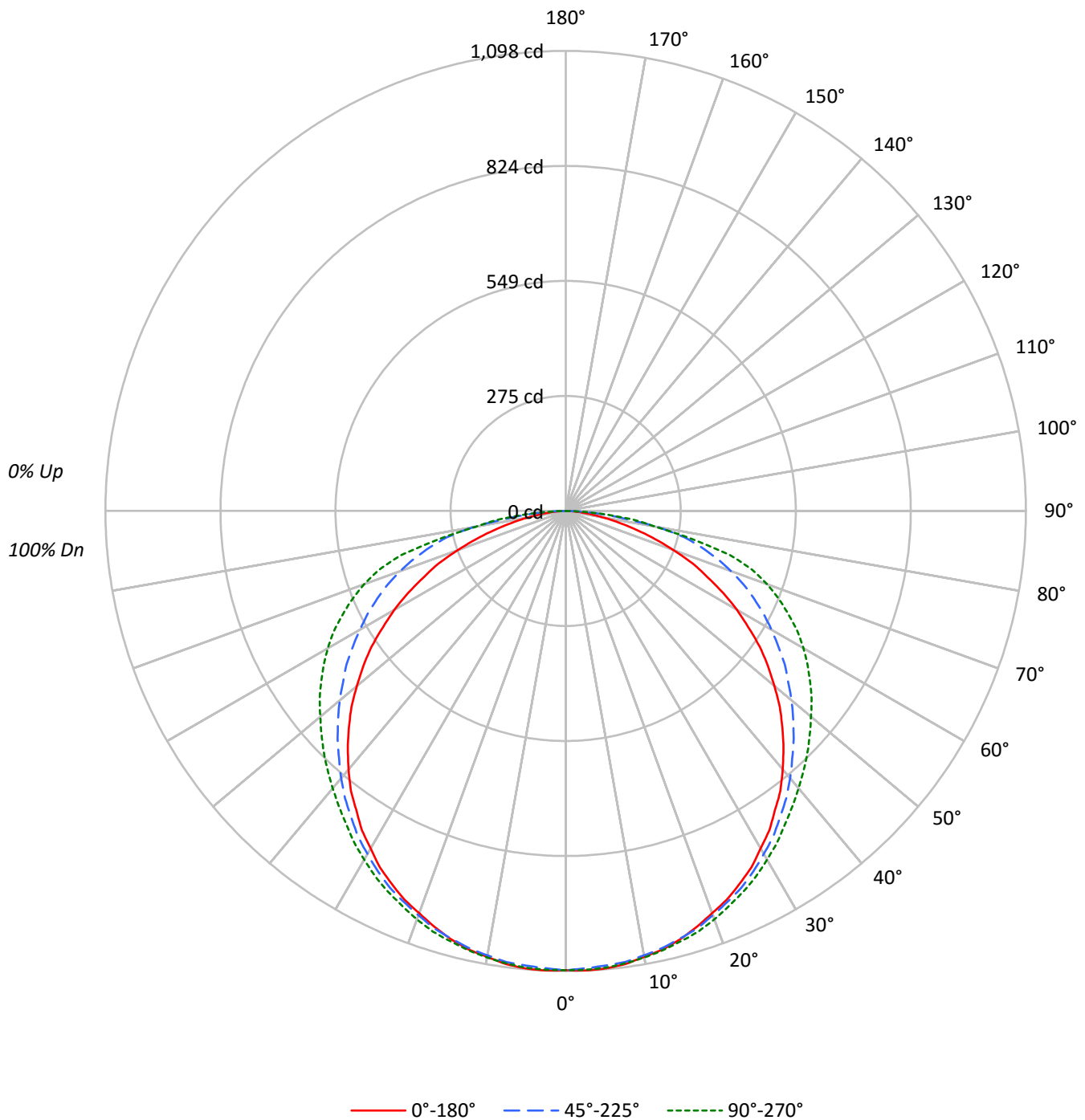
Input Watts (W): 45
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1475	1475	1475
5°	1480	1471	1478
10°	1476	1471	1478
15°	1474	1471	1481
20°	1463	1470	1485
25°	1458	1473	1488
30°	1445	1469	1493
35°	1431	1465	1499
40°	1415	1463	1518
45°	1391	1464	1553
50°	1361	1473	1599
55°	1326	1496	1671
60°	1270	1526	1763
65°	1189	1579	1871
70°	1081	1653	2013
75°	917	1743	2103
80°	723	1754	1701
85°	534	1334	1494



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	104.0	3.0
10°-20°	299.2	8.6
20°-30°	457.5	13.1
30°-40°	559.3	16.0
40°-50°	596.1	17.1
50°-60°	570.0	16.4
60°-70°	482.8	13.9
70°-80°	324.5	9.3
80°-90°	91.5	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°	860.7	24.7
0°-40°	1420.0	40.7
0°-60°	2586.1	74.2
0°-90°	3485.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3485.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1096	1096	1096	1096	1096	
5°	1096	1094	1089	1094	1094	104
15°	1058	1058	1056	1065	1063	298
25°	982	985	992	1001	1003	453
35°	871	878	892	909	913	546
45°	731	743	769	802	816	564
55°	565	586	638	688	712	503
65°	373	411	496	562	588	371
75°	176	240	335	392	404	189
85°	35	71	86	93	97	43
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1095.9	1095.9	1095.9	1095.9	1095.9
2.5°	1097.7	1097.7	1092.5	1095.9	1095.9
5°	1095.9	1094.2	1089.0	1094.2	1094.2
7.5°	1090.7	1089.0	1085.6	1090.7	1089.0
10°	1080.4	1080.4	1076.9	1082.1	1082.1
12.5°	1071.7	1070.0	1068.3	1075.2	1073.5
15°	1057.9	1057.9	1056.2	1064.8	1063.1
17.5°	1040.6	1042.3	1044.1	1051.0	1052.7
20°	1021.6	1025.1	1026.8	1037.2	1037.2
22.5°	1004.3	1006.0	1009.5	1019.9	1019.9
25°	981.8	985.3	992.2	1000.9	1002.6
27.5°	959.4	961.1	969.7	981.8	983.6
30°	930.0	935.2	945.5	959.4	961.1
32.5°	904.1	909.2	921.3	935.2	938.6
35°	871.2	878.1	892.0	909.2	912.7
37.5°	841.8	847.0	864.3	883.3	888.5
40°	805.5	815.9	833.2	855.7	864.3
42.5°	769.2	779.6	800.3	829.7	840.1
45°	731.2	743.3	769.2	802.1	815.9
47.5°	693.2	707.0	736.4	774.4	790.0
50°	650.0	667.2	703.5	746.8	764.0
52.5°	608.5	629.2	669.0	717.4	739.8
55°	565.3	586.0	637.9	688.0	712.2
57.5°	516.9	544.5	601.6	658.6	684.5
60°	471.9	497.8	567.0	629.2	655.1
62.5°	423.5	458.1	532.4	598.1	624.0
65°	373.4	411.4	496.1	561.8	587.7
67.5°	328.4	369.9	459.8	525.5	551.4
70°	274.8	326.7	420.1	485.7	511.7
72.5°	224.7	281.8	378.6	442.5	466.7
75°	176.3	240.3	335.3	392.4	404.5
77.5°	131.4	198.8	290.4	314.6	306.0
80°	93.3	159.0	226.4	214.3	219.5
82.5°	60.5	121.0	140.0	159.0	164.2
85°	34.6	70.9	86.4	93.3	96.8
87.5°	15.6	25.9	34.6	34.6	32.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)