

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: P309612

Luminaire Tested: **24FCZ2-55HE-UNV-L82765-HRP-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: P309612
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: 24FCZ2-55HE-UNV-L82765-HRP-CP125-W2A-U-4500K
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 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: 3821.0 lumens
Efficiency: N/A
Efficacy: 87.0 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

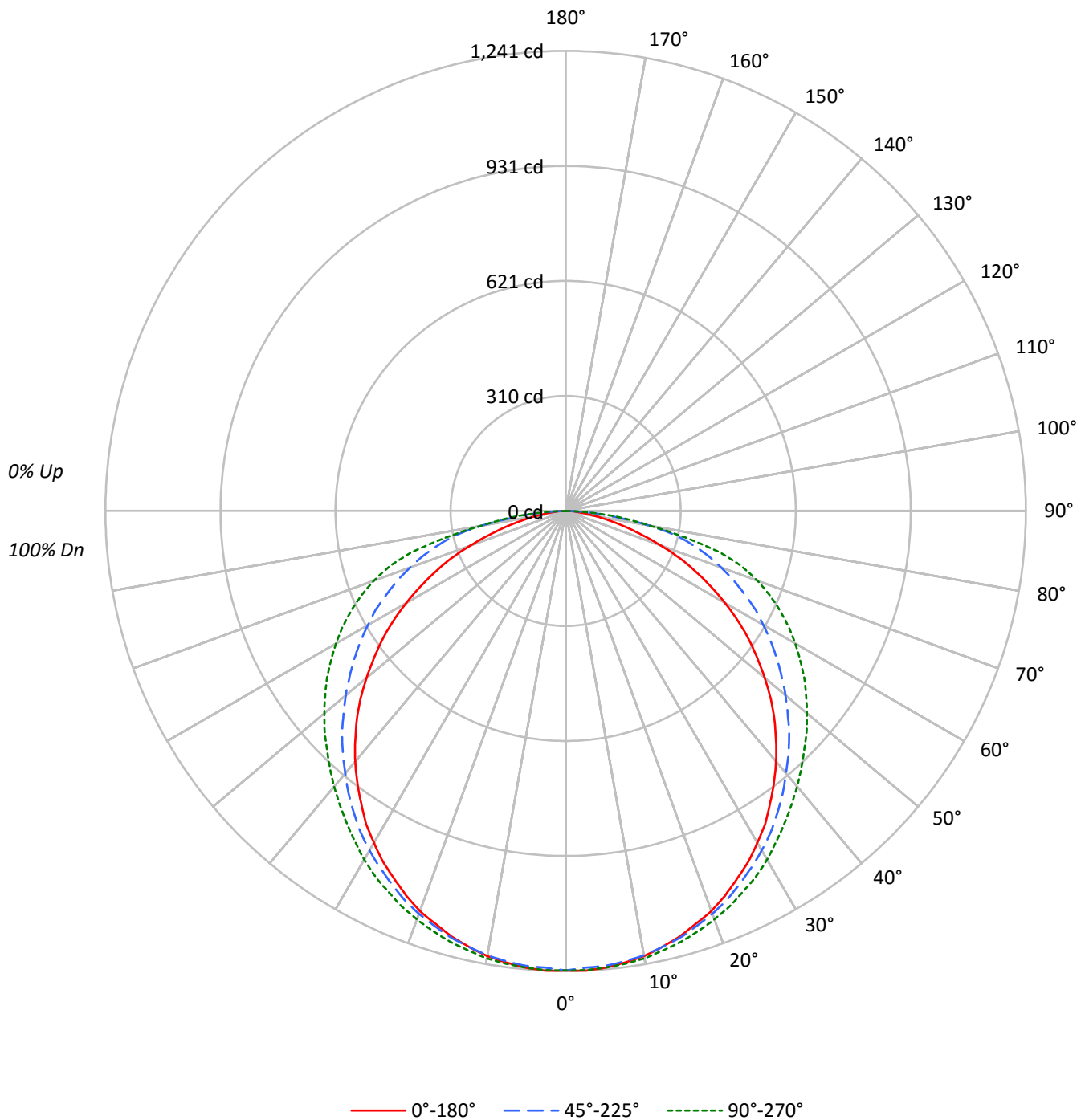
Input Watts (W): 43.9
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				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°	1668	1668	1668
5°	1670	1664	1670
10°	1665	1663	1674
15°	1656	1660	1676
20°	1644	1656	1679
25°	1624	1648	1681
30°	1606	1643	1688
35°	1579	1634	1690
40°	1551	1624	1705
45°	1516	1622	1732
50°	1467	1621	1778
55°	1415	1632	1842
60°	1334	1657	1924
65°	1232	1696	2032
70°	1076	1756	2165
75°	873	1846	2237
80°	645	1809	1809
85°	494	1334	1507



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	117.4	3.1
10°-20°	337.2	8.8
20°-30°	513.4	13.4
30°-40°	623.4	16.3
40°-50°	658.6	17.2
50°-60°	621.5	16.3
60°-70°	516.8	13.5
70°-80°	340.0	8.9
80°-90°	92.7	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°	968.1	25.3
0°-40°	1591.5	41.7
0°-60°	2871.6	75.2
0°-90°	3821.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3821.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1240	1240	1240	1240	1240	
5°	1236	1236	1232	1236	1236	117
15°	1188	1190	1192	1203	1203	335
25°	1094	1101	1110	1129	1133	505
35°	961	973	995	1021	1029	602
45°	797	813	853	894	910	613
55°	603	629	696	761	785	537
65°	387	432	533	611	638	383
75°	168	245	355	421	430	181
85°	32	70	86	96	98	39
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1239.7	1239.7	1239.7	1239.7	1239.7
2.5°	1241.3	1239.7	1233.3	1239.7	1239.7
5°	1236.5	1236.5	1231.7	1236.5	1236.5
7.5°	1228.5	1228.5	1225.3	1231.7	1231.7
10°	1218.9	1218.9	1217.3	1225.3	1225.3
12.5°	1204.5	1206.1	1204.5	1214.1	1214.1
15°	1188.5	1190.1	1191.7	1202.9	1202.9
17.5°	1167.7	1170.9	1174.1	1186.9	1188.5
20°	1148.5	1150.1	1156.5	1170.9	1172.5
22.5°	1123.0	1127.8	1135.7	1150.1	1154.9
25°	1094.2	1100.6	1110.2	1129.4	1132.6
27.5°	1067.0	1071.8	1084.6	1105.4	1111.8
30°	1033.4	1041.4	1057.4	1078.2	1086.2
32.5°	1001.4	1009.4	1028.6	1051.0	1057.4
35°	961.4	972.6	995.0	1020.6	1028.6
37.5°	923.0	934.2	961.4	990.2	999.8
40°	883.0	895.8	924.6	958.2	971.0
42.5°	839.8	857.4	889.4	926.2	940.6
45°	796.6	812.6	852.6	894.2	910.2
47.5°	750.2	769.4	812.6	862.2	881.4
50°	700.6	724.6	774.2	828.6	849.4
52.5°	651.1	678.3	734.2	795.0	817.4
55°	603.1	628.7	695.8	761.4	785.4
57.5°	550.3	582.3	655.9	726.2	750.2
60°	495.9	531.1	615.9	689.4	715.0
62.5°	441.5	481.5	577.5	651.1	678.3
65°	387.1	431.9	532.7	611.1	638.3
67.5°	334.3	383.9	491.1	569.5	596.7
70°	273.5	335.9	446.3	523.1	550.3
72.5°	217.6	289.5	403.1	475.1	499.1
75°	168.0	244.7	355.1	420.7	430.3
77.5°	123.2	200.0	305.5	327.9	329.5
80°	83.2	160.0	233.5	230.3	233.5
82.5°	54.4	120.0	147.2	164.8	166.4
85°	32.0	70.4	86.4	96.0	97.6
87.5°	16.0	24.0	30.4	32.0	35.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)