

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: P310370

Luminaire Tested: **24FCZ2-65HE-UNV-L82765-RDP-CA125-W2A-U-5500K**

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: P310370
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: 24FCZ2-65HE-UNV-L82765-RDP-CA125-W2A-U-5500K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" ACRYLIC SHEET
Light Source: (336) 5500K 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: 4164.0 lumens
Efficiency: N/A
Efficacy: 77.0 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

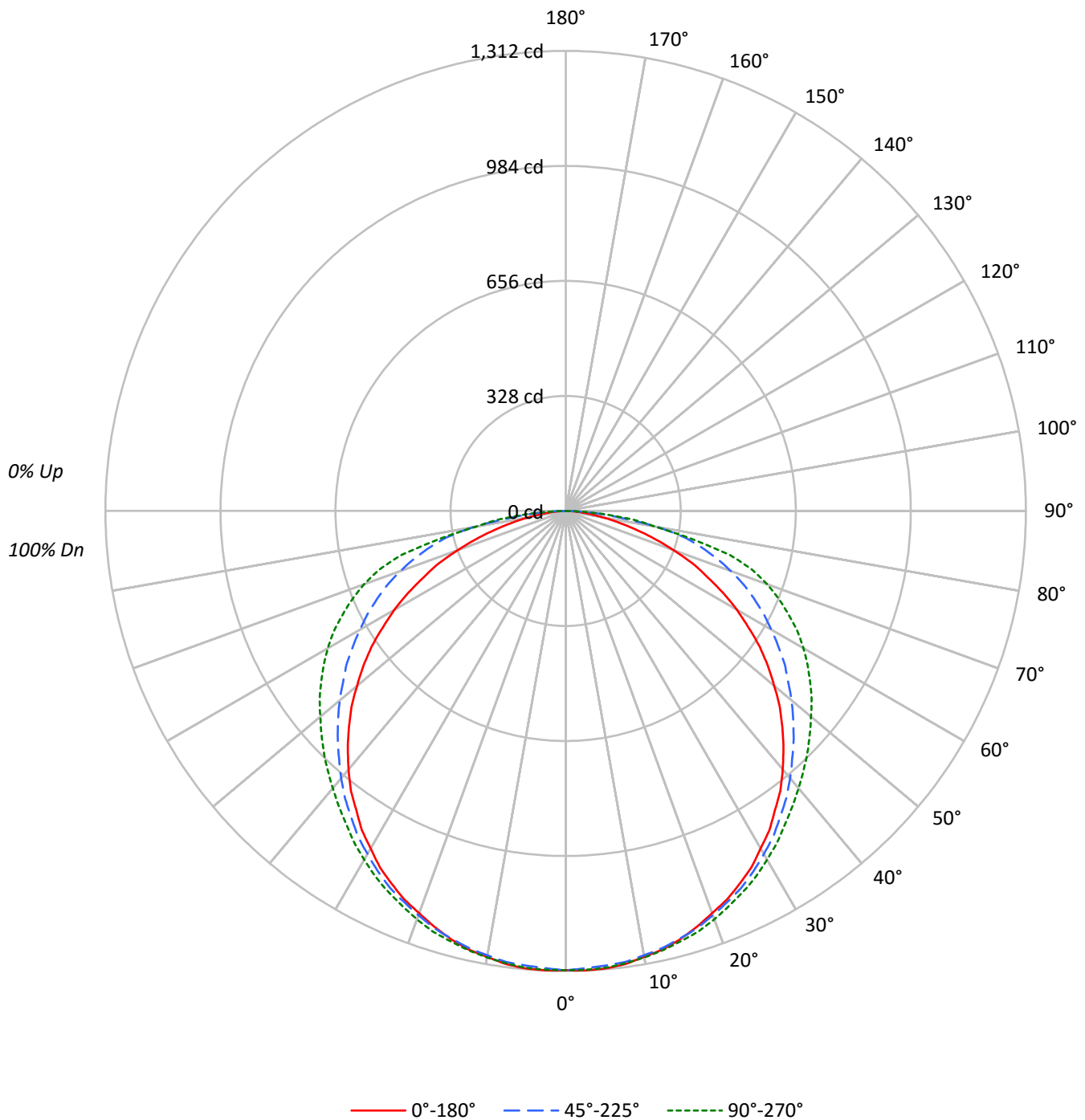
Input Watts (W): 54.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1762	1762	1762
5°	1769	1757	1766
10°	1764	1758	1766
15°	1761	1758	1769
20°	1748	1757	1774
25°	1742	1760	1778
30°	1726	1755	1784
35°	1710	1750	1791
40°	1691	1749	1814
45°	1662	1749	1855
50°	1626	1760	1911
55°	1584	1788	1996
60°	1517	1823	2106
65°	1420	1887	2236
70°	1292	1974	2405
75°	1095	2083	2512
80°	864	2097	2032
85°	638	1595	1786



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	124.2	3.0
10°-20°	357.5	8.6
20°-30°	546.7	13.1
30°-40°	668.3	16.0
40°-50°	712.3	17.1
50°-60°	681.0	16.4
60°-70°	576.9	13.9
70°-80°	387.7	9.3
80°-90°	109.4	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°	1028.4	24.7
0°-40°	1696.7	40.7
0°-60°	3090.0	74.2
0°-90°	4164.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4164.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1310	1310	1310	1310	1310	
5°	1310	1307	1301	1307	1307	124
15°	1264	1264	1262	1272	1270	356
25°	1173	1177	1186	1196	1198	541
35°	1041	1049	1066	1086	1090	652
45°	874	888	919	958	975	674
55°	675	700	762	822	851	602
65°	446	492	593	671	702	443
75°	211	287	401	469	483	226
85°	41	85	103	112	116	51
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1309.5	1309.5	1309.5	1309.5	1309.5
2.5°	1311.5	1311.5	1305.3	1309.5	1309.5
5°	1309.5	1307.4	1301.2	1307.4	1307.4
7.5°	1303.3	1301.2	1297.1	1303.3	1301.2
10°	1290.9	1290.9	1286.7	1292.9	1292.9
12.5°	1280.5	1278.5	1276.4	1284.7	1282.6
15°	1264.0	1264.0	1262.0	1272.3	1270.2
17.5°	1243.4	1245.4	1247.5	1255.8	1257.8
20°	1220.6	1224.8	1226.8	1239.2	1239.2
22.5°	1200.0	1202.1	1206.2	1218.6	1218.6
25°	1173.1	1177.3	1185.5	1195.9	1197.9
27.5°	1146.3	1148.4	1158.7	1173.1	1175.2
30°	1111.2	1117.4	1129.8	1146.3	1148.4
32.5°	1080.2	1086.4	1100.9	1117.4	1121.5
35°	1041.0	1049.2	1065.7	1086.4	1090.5
37.5°	1005.8	1012.0	1032.7	1055.4	1061.6
40°	962.5	974.9	995.5	1022.4	1032.7
42.5°	919.1	931.5	956.3	991.4	1003.8
45°	873.7	888.1	919.1	958.3	974.9
47.5°	828.2	844.7	879.9	925.3	943.9
50°	776.6	797.2	840.6	892.2	912.9
52.5°	727.0	751.8	799.3	857.1	884.0
55°	675.4	700.2	762.1	822.0	850.9
57.5°	617.6	650.6	718.8	786.9	817.9
60°	563.9	594.8	677.4	751.8	782.8
62.5°	506.0	547.3	636.1	714.6	745.6
65°	446.1	491.6	592.8	671.3	702.2
67.5°	392.4	442.0	549.4	627.9	658.9
70°	328.4	390.4	501.9	580.4	611.4
72.5°	268.5	336.7	452.3	528.7	557.7
75°	210.7	287.1	400.7	468.8	483.3
77.5°	157.0	237.5	347.0	375.9	365.6
80°	111.5	190.0	270.6	256.1	262.3
82.5°	72.3	144.6	167.3	190.0	196.2
85°	41.3	84.7	103.3	111.5	115.7
87.5°	18.6	31.0	41.3	41.3	39.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)