

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: P310288

Luminaire Tested: **24FCZ2-55HE-UNV-L82765-RDP-CP125-W2A-U-5000K**

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: P310288
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-5000K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" POLYCARB SHEET
Light Source: (336) 5000K 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: 3434.0 lumens
Efficiency: N/A
Efficacy: 77.9 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

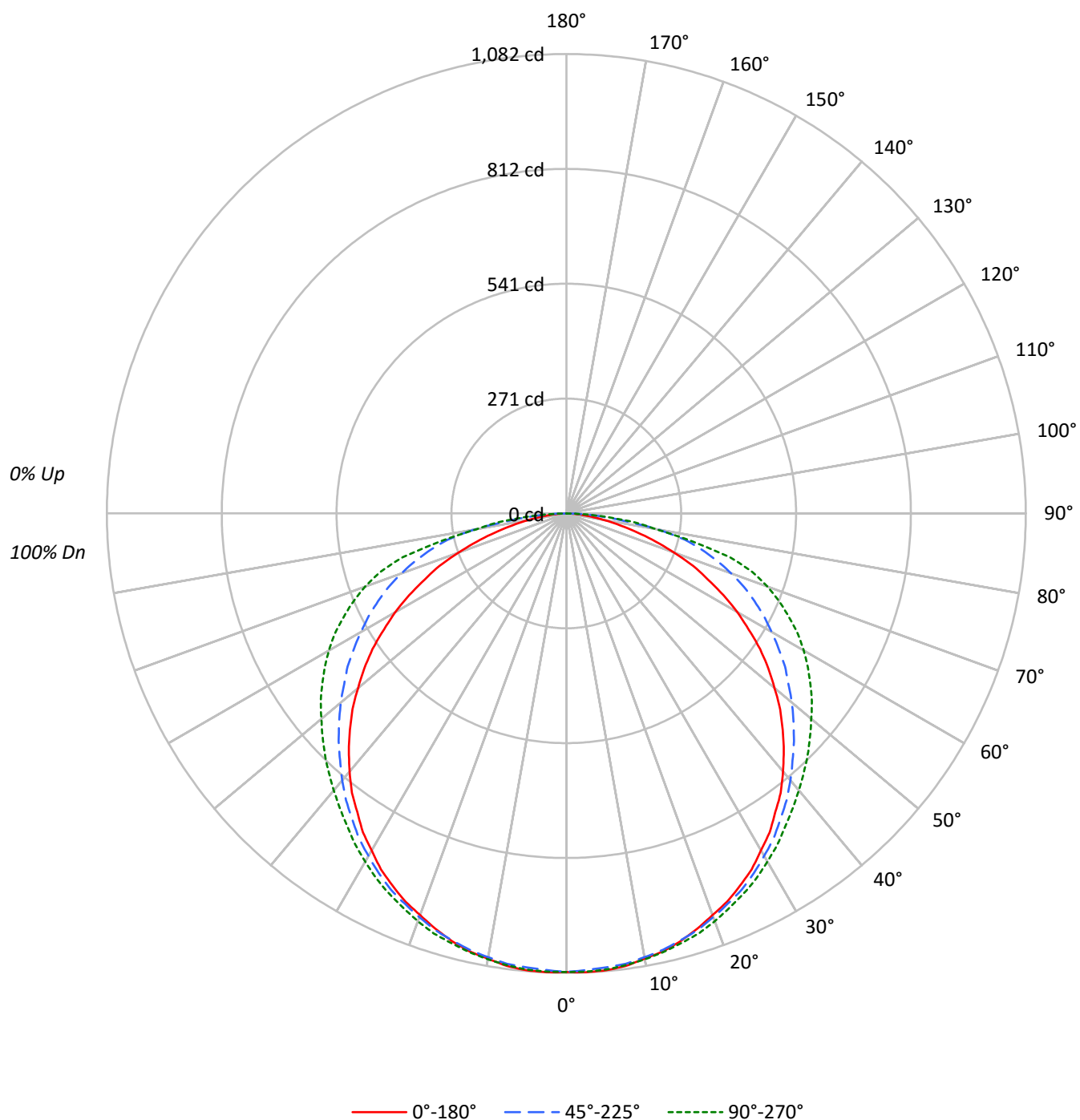
Input Watts (W): 44.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1453	1453	1453
5°	1459	1449	1456
10°	1455	1450	1457
15°	1452	1450	1459
20°	1441	1449	1463
25°	1436	1451	1467
30°	1424	1448	1471
35°	1410	1444	1477
40°	1394	1442	1496
45°	1371	1442	1530
50°	1340	1451	1576
55°	1307	1474	1646
60°	1251	1503	1737
65°	1171	1556	1844
70°	1065	1628	1983
75°	903	1718	2072
80°	713	1729	1676
85°	526	1315	1473



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	102.4	3.0
10°-20°	294.8	8.6
20°-30°	450.8	13.1
30°-40°	551.1	16.0
40°-50°	587.4	17.1
50°-60°	561.6	16.4
60°-70°	475.8	13.9
70°-80°	319.8	9.3
80°-90°	90.2	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°	848.1	24.7
0°-40°	1399.2	40.7
0°-60°	2548.3	74.2
0°-90°	3434.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3434.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1080	1080	1080	1080	1080	
5°	1080	1078	1073	1078	1078	103
15°	1042	1042	1041	1049	1048	294
25°	968	971	978	986	988	446
35°	858	865	879	896	899	538
45°	720	732	758	790	804	556
55°	557	577	628	678	702	496
65°	368	405	489	554	579	365
75°	174	237	330	387	399	186
85°	34	70	85	92	95	42
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1079.9	1079.9	1079.9	1079.9	1079.9
2.5°	1081.6	1081.6	1076.5	1079.9	1079.9
5°	1079.9	1078.2	1073.1	1078.2	1078.2
7.5°	1074.8	1073.1	1069.7	1074.8	1073.1
10°	1064.6	1064.6	1061.2	1066.3	1066.3
12.5°	1056.0	1054.3	1052.6	1059.5	1057.8
15°	1042.4	1042.4	1040.7	1049.2	1047.5
17.5°	1025.4	1027.1	1028.8	1035.6	1037.3
20°	1006.7	1010.1	1011.8	1022.0	1022.0
22.5°	989.6	991.3	994.7	1004.9	1004.9
25°	967.5	970.9	977.7	986.2	987.9
27.5°	945.3	947.0	955.6	967.5	969.2
30°	916.4	921.5	931.7	945.3	947.0
32.5°	890.8	895.9	907.9	921.5	924.9
35°	858.5	865.3	878.9	895.9	899.3
37.5°	829.5	834.6	851.7	870.4	875.5
40°	793.7	804.0	821.0	843.1	851.7
42.5°	758.0	768.2	788.6	817.6	827.8
45°	720.5	732.4	758.0	790.3	804.0
47.5°	683.0	696.7	725.6	763.1	778.4
50°	640.4	657.5	693.2	735.8	752.9
52.5°	599.6	620.0	659.2	706.9	729.0
55°	557.0	577.4	628.5	677.9	701.8
57.5°	509.3	536.5	592.7	649.0	674.5
60°	465.0	490.6	558.7	620.0	645.6
62.5°	417.3	451.4	524.6	589.3	614.9
65°	367.9	405.4	488.8	553.6	579.1
67.5°	323.6	364.5	453.1	517.8	543.4
70°	270.8	321.9	413.9	478.6	504.2
72.5°	221.4	277.6	373.0	436.0	459.9
75°	173.7	236.8	330.4	386.7	398.6
77.5°	129.5	195.9	286.2	310.0	301.5
80°	92.0	156.7	223.1	211.2	216.3
82.5°	59.6	119.2	138.0	156.7	161.8
85°	34.1	69.8	85.2	92.0	95.4
87.5°	15.3	25.5	34.1	34.1	32.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)