

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: P310301

Luminaire Tested: **24FCZ2-55HE-UNV-L82765-RDP-CP250-W2A-U-2700K**

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: P310301
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-CP250-W2A-U-2700K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.250" POLYCARB SHEET
Light Source: (336) 2700K 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: 2906.0 lumens
Efficiency: N/A
Efficacy: 67.4 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

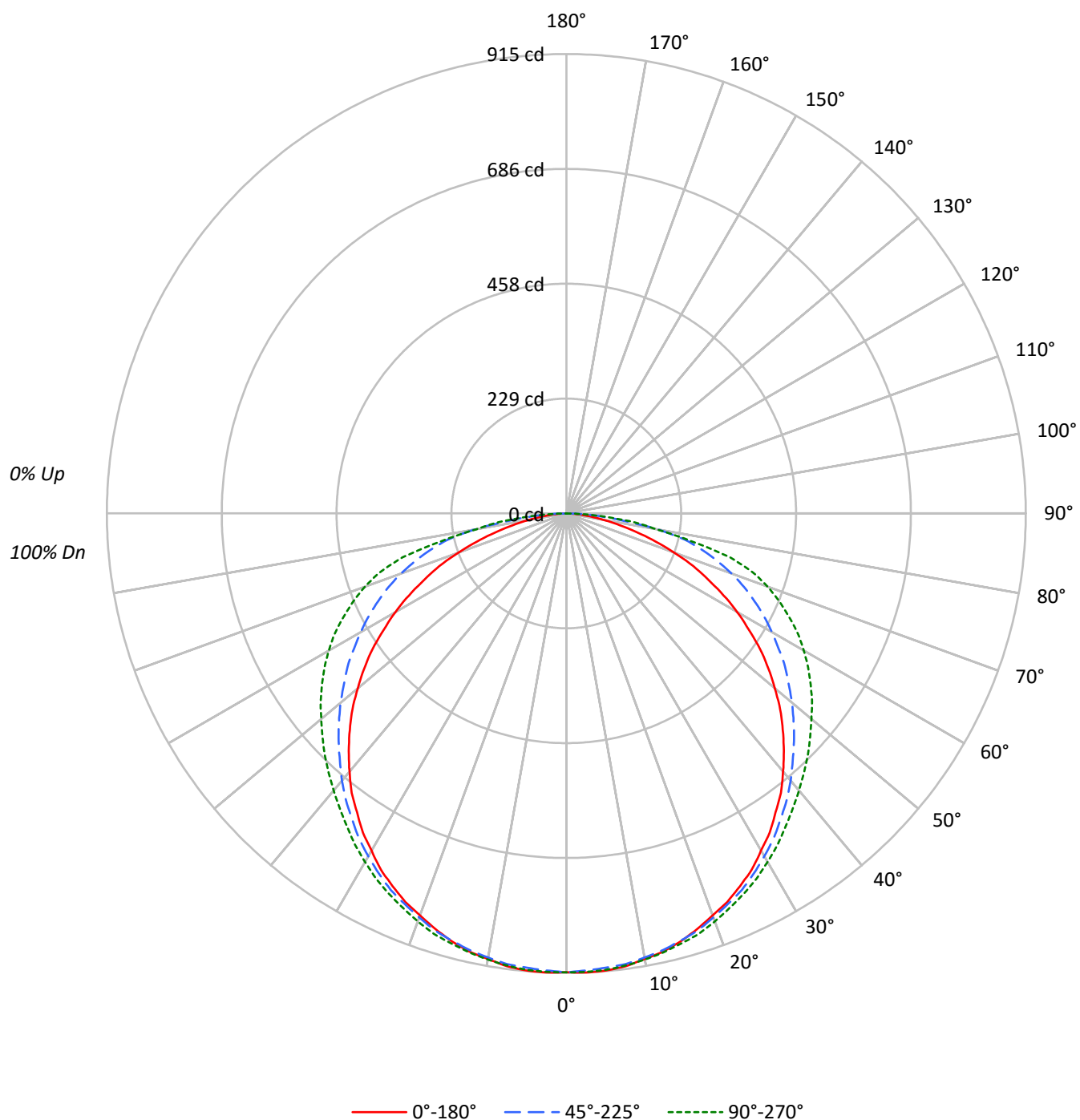
Input Watts (W): 43.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1230	1230	1230
5°	1234	1227	1232
10°	1231	1227	1233
15°	1229	1227	1235
20°	1220	1226	1238
25°	1215	1228	1241
30°	1205	1225	1245
35°	1193	1222	1250
40°	1180	1220	1266
45°	1160	1220	1294
50°	1135	1228	1334
55°	1106	1248	1393
60°	1059	1272	1470
65°	991	1317	1560
70°	902	1378	1679
75°	764	1454	1753
80°	603	1463	1419
85°	445	1113	1246



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	86.7	3.0
10°-20°	249.5	8.6
20°-30°	381.5	13.1
30°-40°	466.4	16.0
40°-50°	497.1	17.1
50°-60°	475.3	16.4
60°-70°	402.6	13.9
70°-80°	270.6	9.3
80°-90°	76.3	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°	717.7	24.7
0°-40°	1184.1	40.7
0°-60°	2156.5	74.2
0°-90°	2906.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2906.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	914	914	914	914	914	
5°	914	912	908	912	912	87
15°	882	882	881	888	886	249
25°	819	822	827	835	836	377
35°	726	732	744	758	761	455
45°	610	620	641	669	680	470
55°	471	489	532	574	594	420
65°	311	343	414	468	490	309
75°	147	200	280	327	337	157
85°	29	59	72	78	81	36
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	913.9	913.9	913.9	913.9	913.9
2.5°	915.3	915.3	911.0	913.9	913.9
5°	913.9	912.4	908.1	912.4	912.4
7.5°	909.5	908.1	905.2	909.5	908.1
10°	900.9	900.9	898.0	902.3	902.3
12.5°	893.7	892.2	890.8	896.6	895.1
15°	882.1	882.1	880.7	887.9	886.5
17.5°	867.7	869.2	870.6	876.4	877.8
20°	851.9	854.8	856.2	864.8	864.8
22.5°	837.5	838.9	841.8	850.4	850.4
25°	818.7	821.6	827.4	834.6	836.0
27.5°	800.0	801.4	808.6	818.7	820.2
30°	775.5	779.8	788.5	800.0	801.4
32.5°	753.9	758.2	768.3	779.8	782.7
35°	726.5	732.2	743.8	758.2	761.1
37.5°	702.0	706.3	720.7	736.6	740.9
40°	671.7	680.3	694.8	713.5	720.7
42.5°	641.4	650.1	667.4	691.9	700.5
45°	609.7	619.8	641.4	668.8	680.3
47.5°	578.0	589.5	614.0	645.8	658.7
50°	542.0	556.4	586.7	622.7	637.1
52.5°	507.4	524.7	557.8	598.2	616.9
55°	471.3	488.6	531.9	573.7	593.9
57.5°	431.0	454.0	501.6	549.2	570.8
60°	393.5	415.1	472.8	524.7	546.3
62.5°	353.1	382.0	444.0	498.7	520.3
65°	311.3	343.1	413.7	468.5	490.1
67.5°	273.9	308.5	383.4	438.2	459.8
70°	229.2	272.4	350.3	405.0	426.7
72.5°	187.4	234.9	315.7	369.0	389.2
75°	147.0	200.4	279.6	327.2	337.3
77.5°	109.5	165.8	242.2	262.3	255.1
80°	77.8	132.6	188.8	178.7	183.1
82.5°	50.4	100.9	116.8	132.6	136.9
85°	28.8	59.1	72.1	77.8	80.7
87.5°	13.0	21.6	28.8	28.8	27.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)