

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: P309609

Luminaire Tested: **24FCZ2-55HE-UNV-L82765-HRP-CP125-W2A-U-3000K**

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: P309609
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-3000K
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125"
POLYCARB SHEET
Light Source: (336) 3000K 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: 3551.0 lumens
Efficiency: N/A
Efficacy: 83.0 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

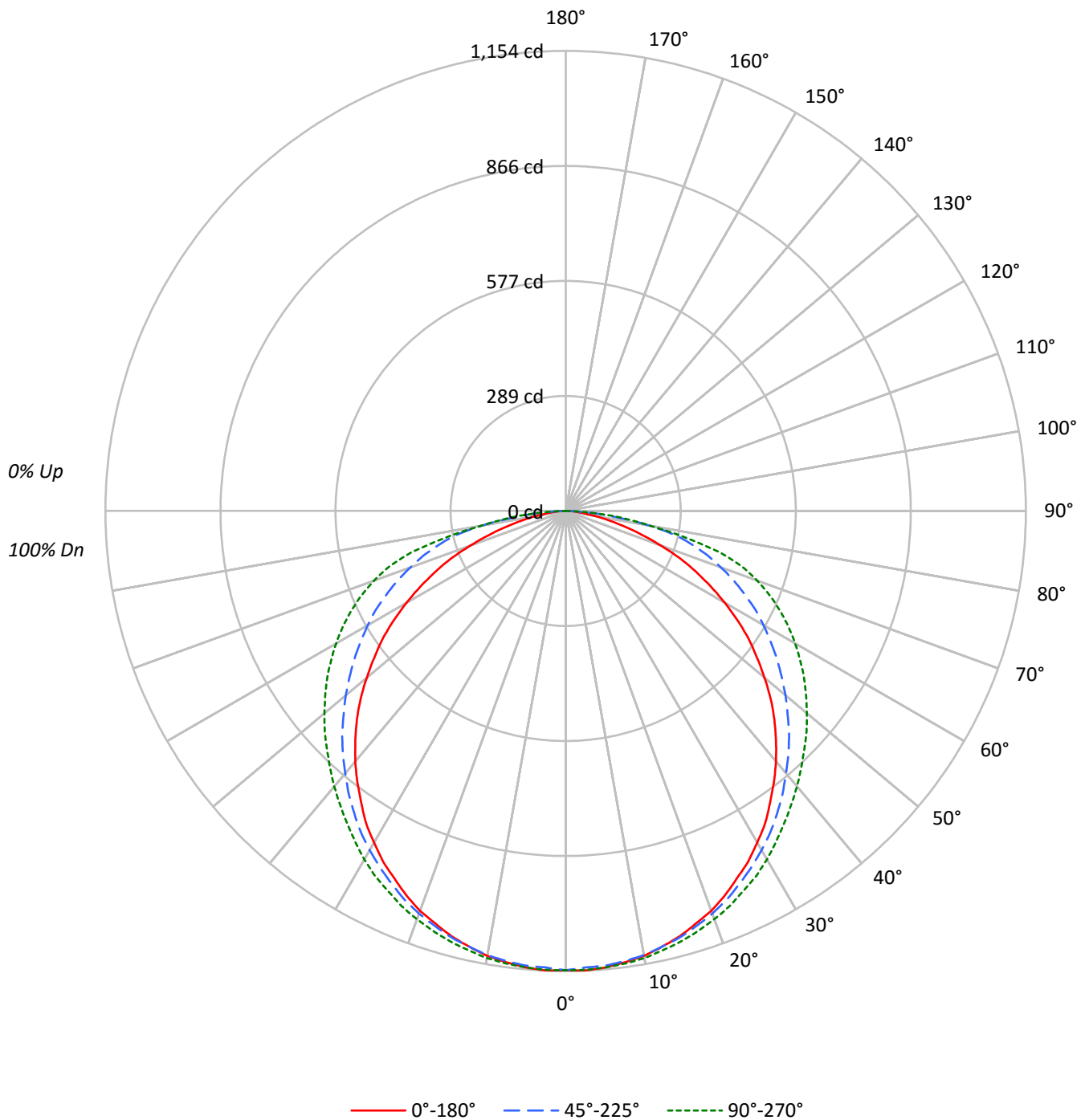
Input Watts (W): 42.8
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1550	1550	1550
5°	1552	1546	1552
10°	1548	1546	1556
15°	1539	1543	1557
20°	1528	1539	1560
25°	1510	1532	1563
30°	1492	1527	1568
35°	1468	1519	1570
40°	1441	1509	1585
45°	1409	1508	1610
50°	1363	1506	1652
55°	1315	1517	1712
60°	1240	1540	1788
65°	1145	1576	1889
70°	1000	1632	2012
75°	811	1716	2079
80°	599	1681	1681
85°	459	1240	1400



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	109.1	3.1
10°-20°	313.4	8.8
20°-30°	477.1	13.4
30°-40°	579.4	16.3
40°-50°	612.1	17.2
50°-60°	577.6	16.3
60°-70°	480.2	13.5
70°-80°	315.9	8.9
80°-90°	86.1	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°	899.7	25.3
0°-40°	1479.1	41.7
0°-60°	2668.7	75.2
0°-90°	3551.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3551.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1152	1152	1152	1152	1152	
5°	1149	1149	1145	1149	1149	109
15°	1105	1106	1108	1118	1118	312
25°	1017	1023	1032	1050	1052	469
35°	894	904	925	948	956	559
45°	740	755	792	831	846	570
55°	560	584	647	708	730	499
65°	360	401	495	568	593	356
75°	156	228	330	391	400	168
85°	30	65	80	89	91	36
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1152.1	1152.1	1152.1	1152.1	1152.1
2.5°	1153.6	1152.1	1146.2	1152.1	1152.1
5°	1149.2	1149.2	1144.7	1149.2	1149.2
7.5°	1141.7	1141.7	1138.7	1144.7	1144.7
10°	1132.8	1132.8	1131.3	1138.7	1138.7
12.5°	1119.4	1120.9	1119.4	1128.3	1128.3
15°	1104.6	1106.0	1107.5	1117.9	1117.9
17.5°	1085.2	1088.2	1091.2	1103.1	1104.6
20°	1067.4	1068.9	1074.8	1088.2	1089.7
22.5°	1043.6	1048.1	1055.5	1068.9	1073.3
25°	1016.8	1022.8	1031.7	1049.5	1052.5
27.5°	991.6	996.0	1007.9	1027.2	1033.2
30°	960.4	967.8	982.7	1002.0	1009.4
32.5°	930.6	938.1	955.9	976.7	982.7
35°	893.5	903.9	924.7	948.5	955.9
37.5°	857.8	868.2	893.5	920.2	929.1
40°	820.6	832.5	859.3	890.5	902.4
42.5°	780.5	796.8	826.6	860.7	874.1
45°	740.3	755.2	792.4	831.0	845.9
47.5°	697.2	715.1	755.2	801.3	819.1
50°	651.1	673.4	719.5	770.1	789.4
52.5°	605.1	630.3	682.4	738.8	759.7
55°	560.5	584.2	646.7	707.6	729.9
57.5°	511.4	541.1	609.5	674.9	697.2
60°	460.8	493.6	572.3	640.7	664.5
62.5°	410.3	447.5	536.7	605.1	630.3
65°	359.8	401.4	495.0	567.9	593.2
67.5°	310.7	356.8	456.4	529.2	554.5
70°	254.2	312.2	414.8	486.1	511.4
72.5°	202.2	269.1	374.6	441.5	463.8
75°	156.1	227.5	330.0	391.0	399.9
77.5°	114.5	185.8	283.9	304.8	306.2
80°	77.3	148.7	217.0	214.1	217.0
82.5°	50.5	111.5	136.8	153.1	154.6
85°	29.7	65.4	80.3	89.2	90.7
87.5°	14.9	22.3	28.2	29.7	32.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)