

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: P309610

Luminaire Tested: **24FCZ2-55HE-UNV-L82765-HRP-CP125-W2A-U-3500K**

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: P309610
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-3500K
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125"
POLYCARB SHEET
Light Source: (336) 3500K 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: 3673.0 lumens
Efficiency: N/A
Efficacy: 84.8 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

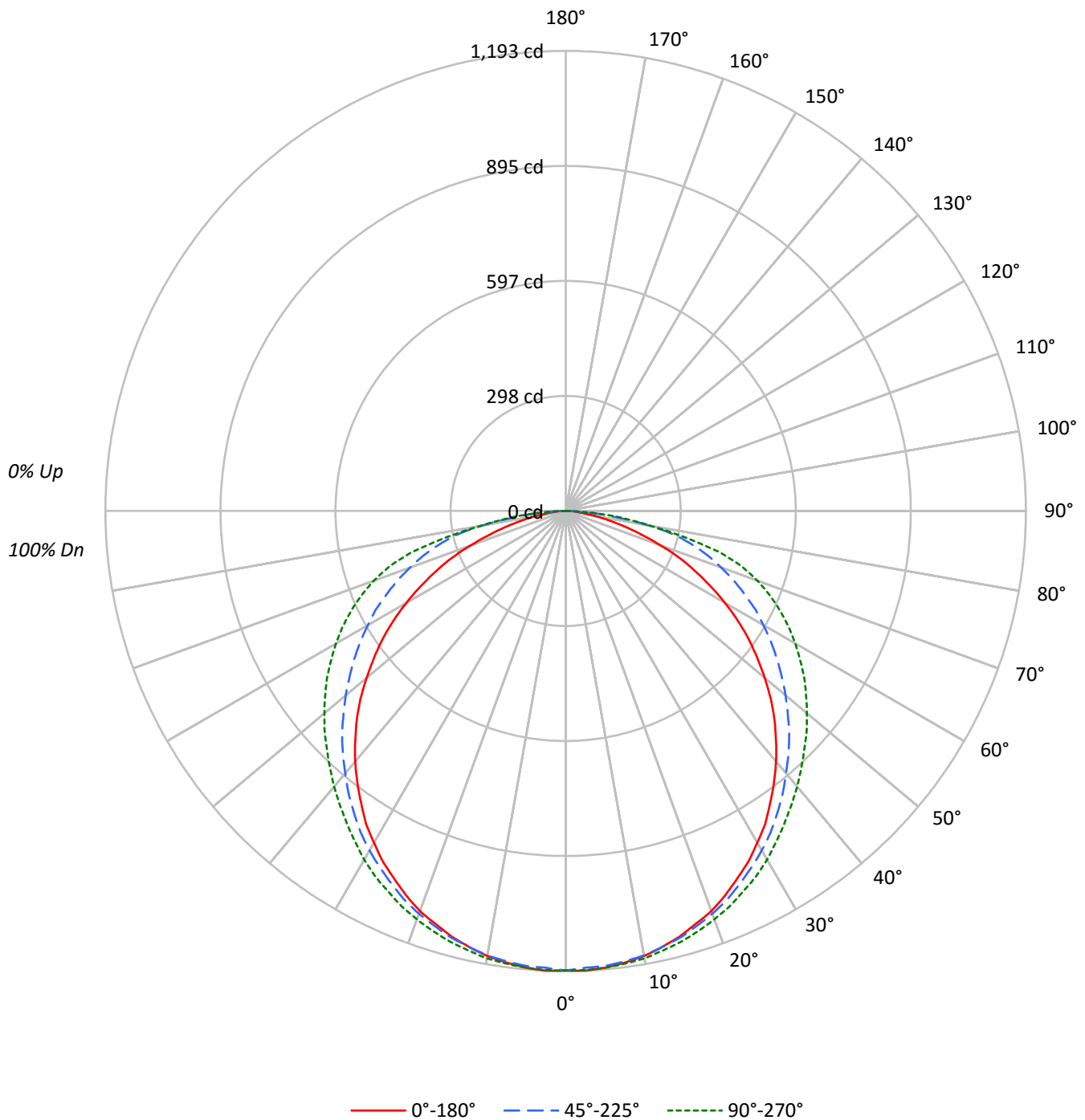
Input Watts (W): 43.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	1603	1603	1603
5°	1605	1599	1605
10°	1601	1599	1609
15°	1591	1596	1611
20°	1581	1592	1614
25°	1561	1584	1616
30°	1543	1579	1622
35°	1518	1571	1624
40°	1491	1561	1639
45°	1457	1560	1665
50°	1410	1558	1709
55°	1360	1569	1771
60°	1283	1593	1850
65°	1185	1630	1953
70°	1034	1688	2081
75°	840	1775	2150
80°	620	1740	1740
85°	475	1281	1448



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	112.9	3.1
10°-20°	324.2	8.8
20°-30°	493.5	13.4
30°-40°	599.3	16.3
40°-50°	633.1	17.2
50°-60°	597.4	16.3
60°-70°	496.7	13.5
70°-80°	326.8	8.9
80°-90°	89.1	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°	930.6	25.3
0°-40°	1529.9	41.7
0°-60°	2760.4	75.2
0°-90°	3673.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3673.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1192	1192	1192	1192	1192	
5°	1189	1189	1184	1189	1189	113
15°	1142	1144	1146	1156	1156	322
25°	1052	1058	1067	1086	1089	485
35°	924	935	956	981	989	579
45°	766	781	820	860	875	590
55°	580	604	669	732	755	516
65°	372	415	512	587	614	368
75°	162	235	341	404	414	174
85°	31	68	83	92	94	38
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1191.7	1191.7	1191.7	1191.7	1191.7
2.5°	1193.2	1191.7	1185.6	1191.7	1191.7
5°	1188.6	1188.6	1184.0	1188.6	1188.6
7.5°	1180.9	1180.9	1177.9	1184.0	1184.0
10°	1171.7	1171.7	1170.2	1177.9	1177.9
12.5°	1157.9	1159.4	1157.9	1167.1	1167.1
15°	1142.5	1144.0	1145.6	1156.3	1156.3
17.5°	1122.5	1125.6	1128.7	1141.0	1142.5
20°	1104.1	1105.6	1111.7	1125.6	1127.1
22.5°	1079.5	1084.1	1091.8	1105.6	1110.2
25°	1051.8	1057.9	1067.2	1085.6	1088.7
27.5°	1025.6	1030.3	1042.6	1062.5	1068.7
30°	993.3	1001.0	1016.4	1036.4	1044.1
32.5°	962.6	970.3	988.7	1010.3	1016.4
35°	924.2	934.9	956.4	981.0	988.7
37.5°	887.2	898.0	924.2	951.8	961.1
40°	848.8	861.1	888.8	921.1	933.4
42.5°	807.3	824.2	855.0	890.3	904.2
45°	765.8	781.1	819.6	859.6	874.9
47.5°	721.2	739.6	781.1	828.8	847.3
50°	673.5	696.6	744.2	796.5	816.5
52.5°	625.8	652.0	705.8	764.2	785.8
55°	579.7	604.3	668.9	731.9	755.0
57.5°	529.0	559.7	630.5	698.1	721.2
60°	476.7	510.5	592.0	662.7	687.3
62.5°	424.4	462.8	555.1	625.8	652.0
65°	372.1	415.2	512.0	587.4	613.5
67.5°	321.4	369.0	472.1	547.4	573.6
70°	262.9	322.9	429.0	502.8	529.0
72.5°	209.1	278.3	387.5	456.7	479.8
75°	161.5	235.3	341.4	404.4	413.6
77.5°	118.4	192.2	293.7	315.2	316.8
80°	80.0	153.8	224.5	221.4	224.5
82.5°	52.3	115.3	141.5	158.4	159.9
85°	30.8	67.7	83.0	92.3	93.8
87.5°	15.4	23.1	29.2	30.8	33.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)