

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: P309633

Luminaire Tested: **24FCZ2-55HE-UNV-L82765-HRP-CP250-W2A-U-5700K**

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: P309633
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-CP250-W2A-U-5700K
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.250"
POLYCARB SHEET
Light Source: (336) 5700K 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: 3724.0 lumens
Efficiency: N/A
Efficacy: 84.1 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

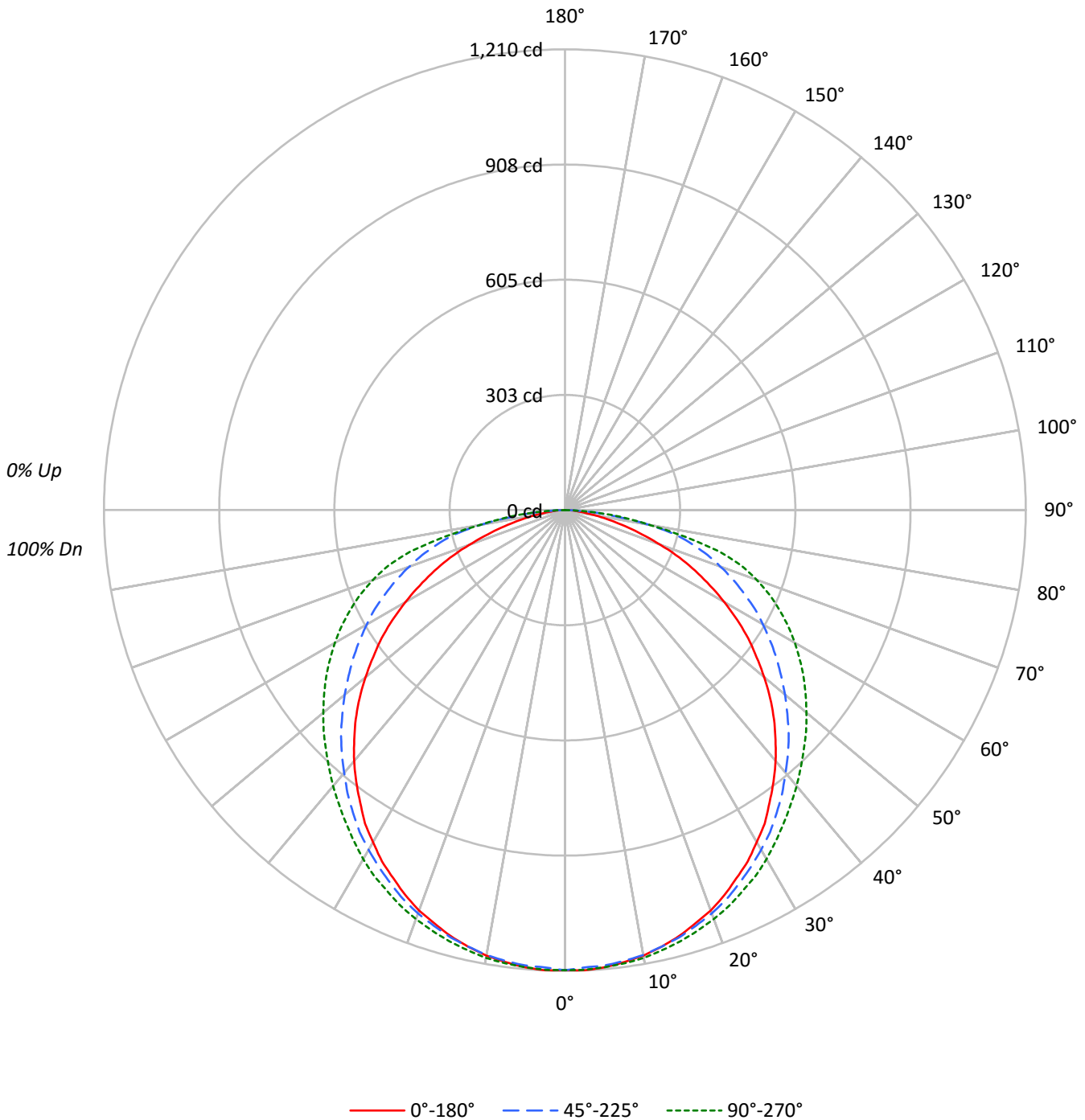
Input Watts (W): 44.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				10	0
RW	70	50	30	10	70	50	30	10	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	102	102	102	100
1	108	103	98	94	105	101	96	93	96	93	90	92	90	87	89	86	84	82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	59	68	63	58	56
4	81	68	59	52	79	67	59	52	65	57	51	62	56	50	60	54	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	38	50	43	38	49	42	38	36
7	63	50	41	34	62	49	40	34	47	39	34	46	39	34	44	38	33	31
8	59	45	36	30	57	44	36	30	43	36	30	42	35	30	41	34	30	28
9	55	41	33	27	54	41	33	27	40	32	27	39	32	27	38	31	27	25
10	52	38	30	25	50	38	30	25	37	30	25	36	29	24	35	29	24	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1626	1626	1626
5°	1628	1621	1628
10°	1623	1621	1632
15°	1614	1618	1633
20°	1603	1614	1636
25°	1583	1606	1639
30°	1565	1601	1645
35°	1539	1593	1647
40°	1512	1583	1662
45°	1477	1581	1688
50°	1429	1580	1733
55°	1379	1591	1796
60°	1301	1615	1875
65°	1201	1653	1981
70°	1049	1711	2110
75°	851	1799	2180
80°	628	1764	1764
85°	482	1300	1468



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	114.5	3.1
10°-20°	328.7	8.8
20°-30°	500.4	13.4
30°-40°	607.6	16.3
40°-50°	641.9	17.2
50°-60°	605.7	16.3
60°-70°	503.6	13.5
70°-80°	331.3	8.9
80°-90°	90.3	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°	943.5	25.3
0°-40°	1551.1	41.7
0°-60°	2798.7	75.2
0°-90°	3724.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3724.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1208	1208	1208	1208	1208	
5°	1205	1205	1200	1205	1205	114
15°	1158	1160	1162	1172	1172	327
25°	1066	1073	1082	1101	1104	492
35°	937	948	970	995	1002	587
45°	776	792	831	872	887	598
55°	588	613	678	742	766	524
65°	377	421	519	596	622	373
75°	164	238	346	410	419	176
85°	31	69	84	94	95	38
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1208.3	1208.3	1208.3	1208.3	1208.3
2.5°	1209.8	1208.3	1202.0	1208.3	1208.3
5°	1205.1	1205.1	1200.5	1205.1	1205.1
7.5°	1197.3	1197.3	1194.2	1200.5	1200.5
10°	1188.0	1188.0	1186.4	1194.2	1194.2
12.5°	1174.0	1175.5	1174.0	1183.3	1183.3
15°	1158.4	1159.9	1161.5	1172.4	1172.4
17.5°	1138.1	1141.2	1144.3	1156.8	1158.4
20°	1119.4	1120.9	1127.2	1141.2	1142.8
22.5°	1094.4	1099.1	1106.9	1120.9	1125.6
25°	1066.4	1072.6	1082.0	1100.7	1103.8
27.5°	1039.9	1044.6	1057.0	1077.3	1083.5
30°	1007.1	1014.9	1030.5	1050.8	1058.6
32.5°	976.0	983.8	1002.5	1024.3	1030.5
35°	937.0	947.9	969.7	994.7	1002.5
37.5°	899.6	910.5	937.0	965.0	974.4
40°	860.6	873.1	901.1	933.9	946.3
42.5°	818.5	835.6	866.8	902.7	916.7
45°	776.4	792.0	831.0	871.5	887.1
47.5°	731.2	749.9	792.0	840.3	859.0
50°	682.9	706.2	754.6	807.6	827.8
52.5°	634.5	661.0	715.6	774.8	796.7
55°	587.8	612.7	678.2	742.1	765.5
57.5°	536.3	567.5	639.2	707.8	731.2
60°	483.3	517.6	600.2	671.9	696.9
62.5°	430.3	469.3	562.8	634.5	661.0
65°	377.3	420.9	519.2	595.6	622.1
67.5°	325.8	374.2	478.6	555.0	581.5
70°	266.6	327.4	435.0	509.8	536.3
72.5°	212.0	282.2	392.9	463.0	486.4
75°	163.7	238.5	346.1	410.0	419.4
77.5°	120.0	194.9	297.8	319.6	321.2
80°	81.1	155.9	227.6	224.5	227.6
82.5°	53.0	116.9	143.4	160.6	162.1
85°	31.2	68.6	84.2	93.5	95.1
87.5°	15.6	23.4	29.6	31.2	34.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)