

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: P309508

Luminaire Tested: **24FCZ2-50HE-UNV-L82765-HRP-CA08-W2A-U-6500K**

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: P309508  
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: 24FCZ2-50HE-UNV-L82765-HRP-CA08-W2A-U-6500K  
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.08" ACRYLIC SHEET  
Light Source: (336) 6500K 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**

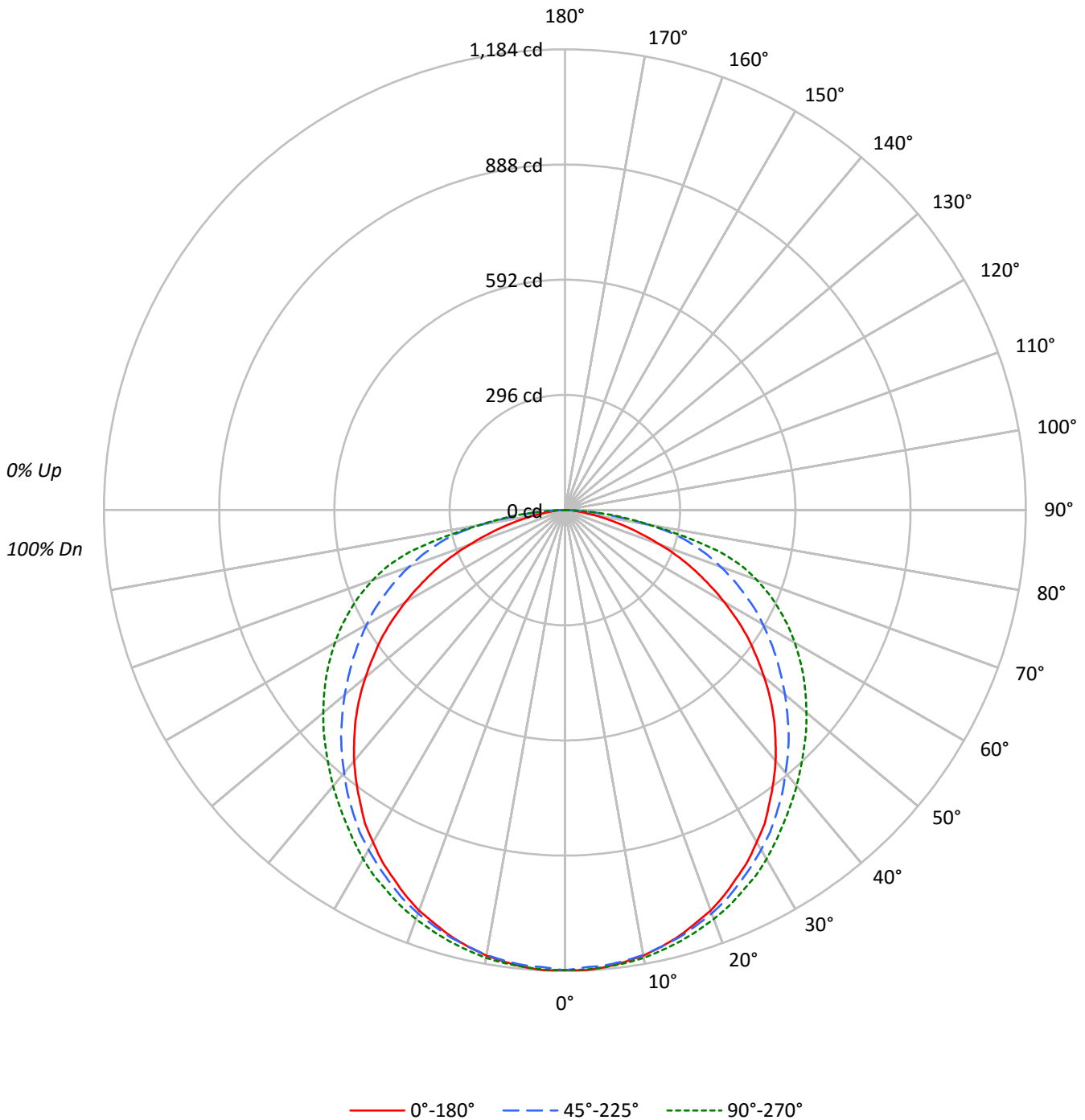
Lumens per Lamp: N/A  
Luminaire Lumens: 3644.0 lumens  
Efficiency: N/A  
Efficacy: 90.9 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.3 / 1.4  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 40.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
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				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°	1591	1591	1591
5°	1593	1587	1593
10°	1588	1586	1597
15°	1579	1583	1598
20°	1568	1579	1601
25°	1549	1572	1603
30°	1531	1567	1609
35°	1506	1559	1611
40°	1479	1549	1626
45°	1446	1547	1652
50°	1399	1546	1696
55°	1349	1557	1757
60°	1273	1580	1835
65°	1175	1617	1938
70°	1026	1674	2065
75°	833	1761	2133
80°	614	1726	1726
85°	471	1272	1437



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	112.0	3.1
10°-20°	321.6	8.8
20°-30°	489.6	13.4
30°-40°	594.5	16.3
40°-50°	628.1	17.2
50°-60°	592.7	16.3
60°-70°	492.8	13.5
70°-80°	324.2	8.9
80°-90°	88.4	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°	923.3	25.3
0°-40°	1517.8	41.7
0°-60°	2738.6	75.2
0°-90°	3644.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3644.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1182	1182	1182	1182	1182	
5°	1179	1179	1175	1179	1179	112
15°	1134	1135	1136	1147	1147	320
25°	1044	1050	1059	1077	1080	481
35°	917	928	949	973	981	574
45°	760	775	813	853	868	585
55°	575	600	664	726	749	512
65°	369	412	508	583	609	365
75°	160	233	339	401	410	173
85°	30	67	82	92	93	37
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1182.3	1182.3	1182.3	1182.3	1182.3
2.5°	1183.8	1182.3	1176.2	1182.3	1182.3
5°	1179.2	1179.2	1174.7	1179.2	1179.2
7.5°	1171.6	1171.6	1168.6	1174.7	1174.7
10°	1162.5	1162.5	1160.9	1168.6	1168.6
12.5°	1148.7	1150.3	1148.7	1157.9	1157.9
15°	1133.5	1135.0	1136.5	1147.2	1147.2
17.5°	1113.6	1116.7	1119.8	1132.0	1133.5
20°	1095.3	1096.9	1103.0	1116.7	1118.2
22.5°	1070.9	1075.5	1083.1	1096.9	1101.4
25°	1043.5	1049.6	1058.7	1077.0	1080.1
27.5°	1017.5	1022.1	1034.3	1054.2	1060.3
30°	985.5	993.1	1008.4	1028.2	1035.8
32.5°	955.0	962.6	980.9	1002.3	1008.4
35°	916.9	927.5	948.9	973.3	980.9
37.5°	880.2	890.9	916.9	944.3	953.5
40°	842.1	854.3	881.8	913.8	926.0
42.5°	800.9	817.7	848.2	883.3	897.0
45°	759.7	775.0	813.1	852.8	868.0
47.5°	715.5	733.8	775.0	822.3	840.6
50°	668.2	691.1	738.4	790.2	810.1
52.5°	620.9	646.8	700.2	758.2	779.6
55°	575.1	599.5	663.6	726.2	749.0
57.5°	524.8	555.3	625.5	692.6	715.5
60°	472.9	506.5	587.3	657.5	681.9
62.5°	421.1	459.2	550.7	620.9	646.8
65°	369.2	411.9	508.0	582.8	608.7
67.5°	318.8	366.1	468.3	543.1	569.0
70°	260.9	320.4	425.6	498.9	524.8
72.5°	207.5	276.1	384.4	453.1	476.0
75°	160.2	233.4	338.7	401.2	410.4
77.5°	117.5	190.7	291.4	312.7	314.3
80°	79.3	152.6	222.7	219.7	222.7
82.5°	51.9	114.4	140.4	157.1	158.7
85°	30.5	67.1	82.4	91.5	93.1
87.5°	15.3	22.9	29.0	30.5	33.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)