

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: P309632

Luminaire Tested: **24FCZ2-55HE-UNV-L82765-HRP-CP250-W2A-U-5500K**

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: P309632
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-5500K
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.250"
POLYCARB SHEET
Light Source: (336) 5500K 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: 3715.0 lumens
Efficiency: N/A
Efficacy: 83.9 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

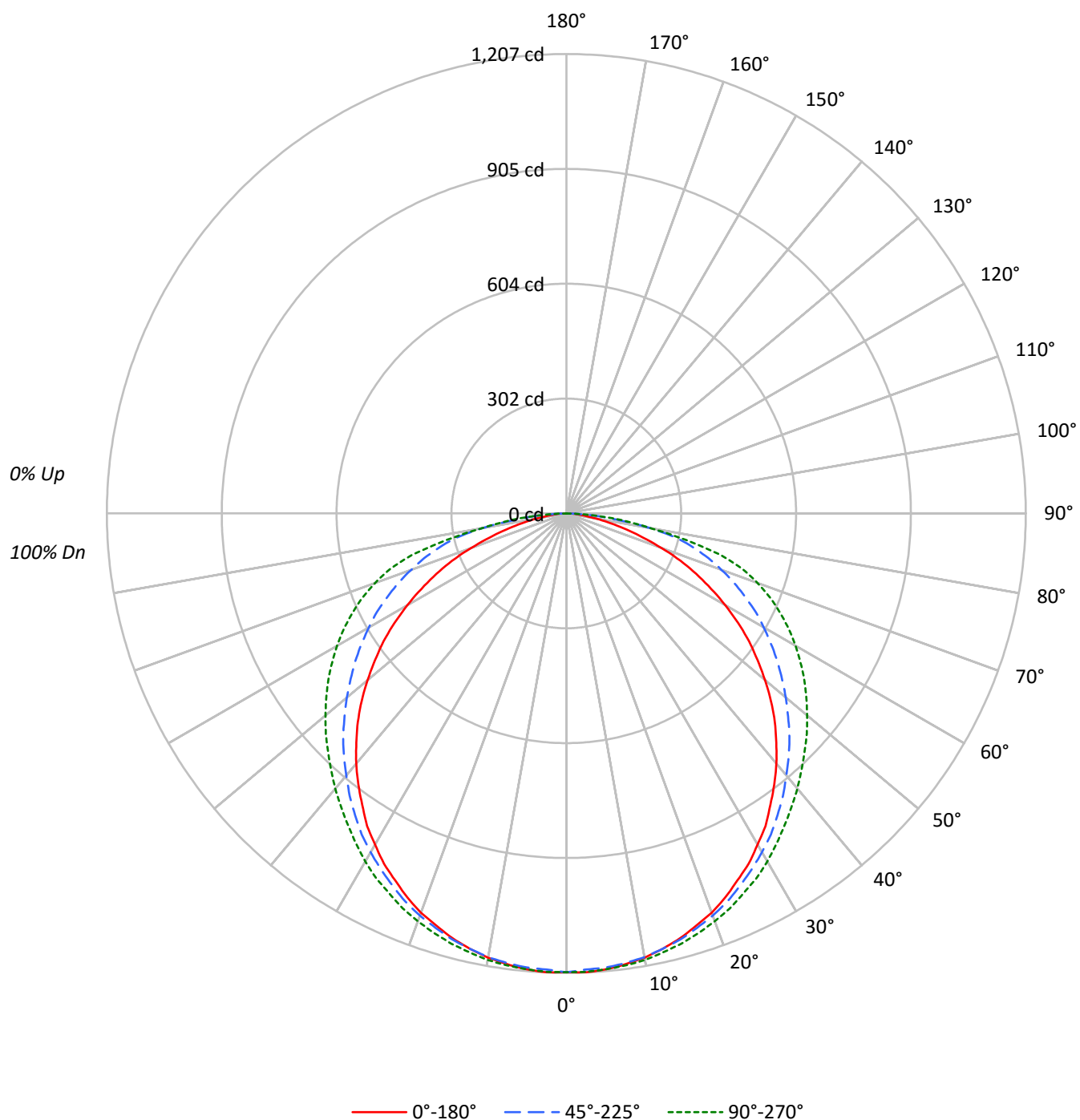
Input Watts (W): 44.3
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1622	1622	1622
5°	1624	1618	1624
10°	1619	1617	1628
15°	1610	1614	1629
20°	1599	1610	1632
25°	1579	1602	1635
30°	1561	1597	1641
35°	1535	1589	1643
40°	1508	1579	1658
45°	1474	1577	1684
50°	1426	1576	1729
55°	1375	1587	1791
60°	1297	1611	1871
65°	1198	1649	1976
70°	1046	1707	2105
75°	849	1795	2175
80°	627	1760	1760
85°	480	1297	1465



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	114.2	3.1
10°-20°	327.9	8.8
20°-30°	499.2	13.4
30°-40°	606.1	16.3
40°-50°	640.4	17.2
50°-60°	604.2	16.3
60°-70°	502.4	13.5
70°-80°	330.5	8.9
80°-90°	90.1	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°	941.2	25.3
0°-40°	1547.4	41.7
0°-60°	2792.0	75.2
0°-90°	3715.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3715.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1205	1205	1205	1205	1205	
5°	1202	1202	1198	1202	1202	114
15°	1156	1157	1159	1170	1170	326
25°	1064	1070	1079	1098	1101	491
35°	935	946	967	992	1000	585
45°	774	790	829	869	885	596
55°	586	611	676	740	764	522
65°	376	420	518	594	621	372
75°	163	238	345	409	418	176
85°	31	68	84	93	95	38
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1205.3	1205.3	1205.3	1205.3	1205.3
2.5°	1206.9	1205.3	1199.1	1205.3	1205.3
5°	1202.2	1202.2	1197.6	1202.2	1202.2
7.5°	1194.4	1194.4	1191.3	1197.6	1197.6
10°	1185.1	1185.1	1183.6	1191.3	1191.3
12.5°	1171.1	1172.7	1171.1	1180.5	1180.5
15°	1155.6	1157.1	1158.7	1169.6	1169.6
17.5°	1135.3	1138.5	1141.6	1154.0	1155.6
20°	1116.7	1118.2	1124.5	1138.5	1140.0
22.5°	1091.8	1096.5	1104.2	1118.2	1122.9
25°	1063.8	1070.0	1079.4	1098.0	1101.1
27.5°	1037.4	1042.0	1054.5	1074.7	1080.9
30°	1004.7	1012.5	1028.0	1048.3	1056.0
32.5°	973.6	981.4	1000.0	1021.8	1028.0
35°	934.7	945.6	967.4	992.3	1000.0
37.5°	897.4	908.3	934.7	962.7	972.0
40°	858.5	871.0	898.9	931.6	944.0
42.5°	816.5	833.6	864.7	900.5	914.5
45°	774.5	790.1	829.0	869.4	884.9
47.5°	729.4	748.1	790.1	838.3	857.0
50°	681.2	704.5	752.8	805.6	825.8
52.5°	633.0	659.4	713.9	773.0	794.7
55°	586.3	611.2	676.5	740.3	763.6
57.5°	535.0	566.1	637.7	706.1	729.4
60°	482.1	516.3	598.8	670.3	695.2
62.5°	429.3	468.1	561.5	633.0	659.4
65°	376.4	419.9	517.9	594.1	620.6
67.5°	325.1	373.3	477.5	553.7	580.1
70°	266.0	326.6	433.9	508.6	535.0
72.5°	211.5	281.5	391.9	461.9	485.2
75°	163.3	238.0	345.3	409.0	418.4
77.5°	119.8	194.4	297.1	318.8	320.4
80°	80.9	155.5	227.1	224.0	227.1
82.5°	52.9	116.6	143.1	160.2	161.7
85°	31.1	68.4	84.0	93.3	94.9
87.5°	15.6	23.3	29.6	31.1	34.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)