

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: P313785

Luminaire Tested: **24FCZ2-75HE-UNV-L83050-RDP-CP250-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: P313785
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-19)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 24FCZ2-75HE-UNV-L83050-RDP-CP250-W2A-U-3000K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.250" 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: 4065.0 lumens
Efficiency: N/A
Efficacy: 64.8 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

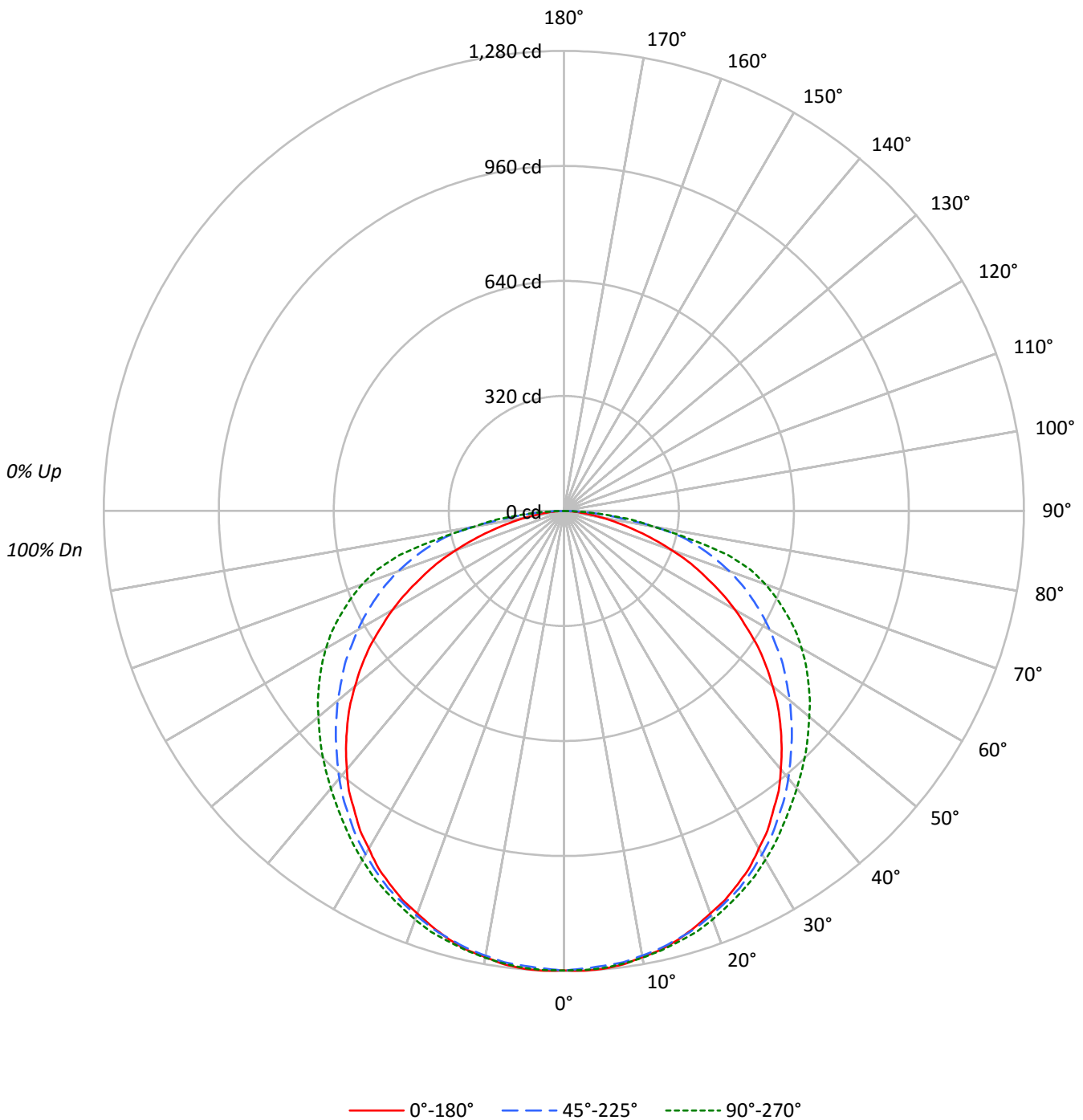
Input Watts (W): 62.7
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				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	100	96	92	96	93	89	92	89	87	88	86	84	82
2	97	89	81	75	95	87	80	74	83	77	72	80	75	71	77	73	69	67
3	88	77	68	62	86	76	67	61	72	66	60	70	64	59	67	62	58	56
4	81	68	59	52	78	67	58	51	64	57	51	62	55	50	59	54	49	47
5	74	60	51	44	72	59	51	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	45	38	51	44	38	50	43	37	48	42	37	35
7	63	49	40	34	61	48	40	34	47	39	33	45	38	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	41	34	29	40	34	29	27
9	55	41	33	27	53	40	32	27	39	32	27	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1720	1720	1720
5°	1727	1716	1724
10°	1722	1716	1724
15°	1719	1716	1727
20°	1706	1715	1732
25°	1700	1718	1736
30°	1685	1714	1742
35°	1669	1709	1749
40°	1650	1707	1771
45°	1623	1707	1811
50°	1587	1718	1865
55°	1547	1745	1949
60°	1481	1780	2056
65°	1387	1842	2182
70°	1261	1928	2348
75°	1069	2034	2453
80°	844	2046	1984
85°	622	1556	1743



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	121.3	3.0
10°-20°	349.0	8.6
20°-30°	533.7	13.1
30°-40°	652.4	16.0
40°-50°	695.3	17.1
50°-60°	664.8	16.4
60°-70°	563.2	13.9
70°-80°	378.5	9.3
80°-90°	106.8	2.6
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°	1003.9	24.7
0°-40°	1656.3	40.7
0°-60°	3016.5	74.2
0°-90°	4065.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4065.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1278	1278	1278	1278	1278	
5°	1278	1276	1270	1276	1276	121
15°	1234	1234	1232	1242	1240	348
25°	1145	1149	1157	1167	1169	528
35°	1016	1024	1040	1061	1065	637
45°	853	867	897	936	952	658
55°	659	684	744	802	831	587
65°	436	480	579	655	686	432
75°	206	280	391	458	472	220
85°	40	83	101	109	113	50
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1278.3	1278.3	1278.3	1278.3	1278.3
2.5°	1280.3	1280.3	1274.3	1278.3	1278.3
5°	1278.3	1276.3	1270.3	1276.3	1276.3
7.5°	1272.3	1270.3	1266.2	1272.3	1270.3
10°	1260.2	1260.2	1256.1	1262.2	1262.2
12.5°	1250.1	1248.1	1246.1	1254.1	1252.1
15°	1234.0	1234.0	1232.0	1242.0	1240.0
17.5°	1213.8	1215.8	1217.8	1225.9	1227.9
20°	1191.6	1195.7	1197.7	1209.8	1209.8
22.5°	1171.5	1173.5	1177.5	1189.6	1189.6
25°	1145.3	1149.3	1157.3	1167.4	1169.4
27.5°	1119.0	1121.1	1131.1	1145.3	1147.3
30°	1084.8	1090.8	1102.9	1119.0	1121.1
32.5°	1054.5	1060.6	1074.7	1090.8	1094.8
35°	1016.2	1024.3	1040.4	1060.6	1064.6
37.5°	981.9	988.0	1008.1	1030.3	1036.4
40°	939.6	951.7	971.9	998.1	1008.1
42.5°	897.2	909.3	933.5	967.8	979.9
45°	852.9	867.0	897.2	935.6	951.7
47.5°	808.5	824.7	858.9	903.3	921.4
50°	758.1	778.3	820.6	871.0	891.2
52.5°	709.7	733.9	780.3	836.8	863.0
55°	659.3	683.5	744.0	802.5	830.7
57.5°	602.9	635.1	701.7	768.2	798.4
60°	550.4	580.7	661.3	733.9	764.2
62.5°	494.0	534.3	621.0	697.6	727.9
65°	435.5	479.9	578.7	655.3	685.5
67.5°	383.1	431.5	536.3	613.0	643.2
70°	320.6	381.1	490.0	566.6	596.8
72.5°	262.1	328.7	441.6	516.2	544.4
75°	205.7	280.3	391.2	457.7	471.8
77.5°	153.2	231.9	338.7	367.0	356.9
80°	108.9	185.5	264.1	250.0	256.1
82.5°	70.6	141.1	163.3	185.5	191.5
85°	40.3	82.7	100.8	108.9	112.9
87.5°	18.1	30.2	40.3	40.3	38.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)