

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: P314474

Luminaire Tested: **24FCZ2-65HE-UNV-L83050-S-CA125-W2A-U-5000K**

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: P314474
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-1)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 24FCZ2-65HE-UNV-L83050-S-CA125-W2A-U-5000K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS, 0.125" ACRYLIC SHEET
Light Source: (336) 5000K 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: 6632.0 lumens
Efficiency: N/A
Efficacy: 120.1 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

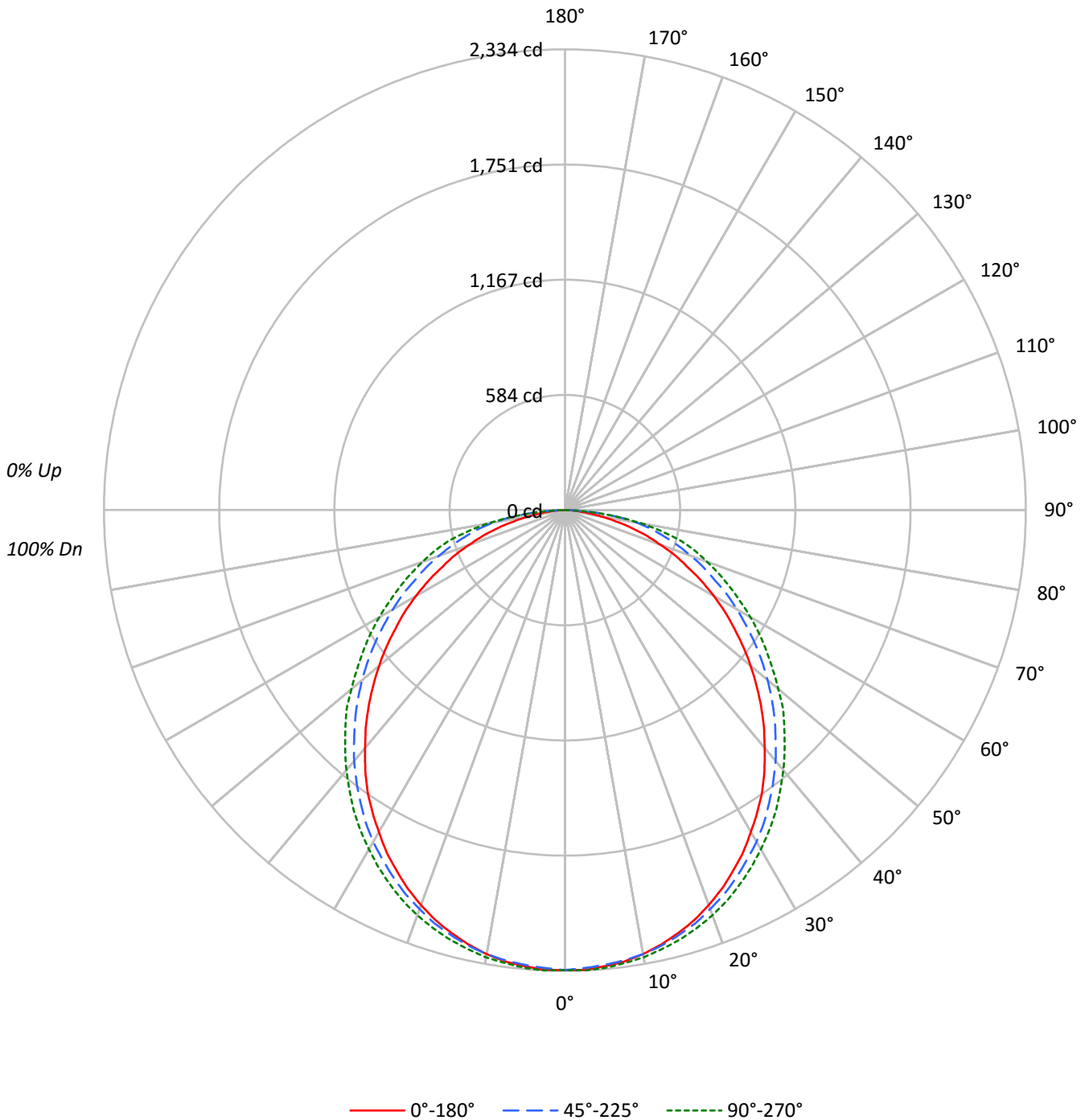
Input Watts (W): 55.2
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	99	95	106	101	97	93	97	93	90	93	90	88	89	87	85	83
2	98	90	83	77	96	88	81	76	84	79	74	81	76	72	78	74	71	69
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42
6	70	56	47	40	68	55	47	40	53	46	40	52	45	40	50	44	39	37
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3135	3135	3135
5°	3133	3124	3144
10°	3120	3120	3143
15°	3090	3104	3137
20°	3049	3080	3128
25°	2993	3049	3109
30°	2926	3014	3083
35°	2861	2965	3059
40°	2764	2916	3023
45°	2674	2858	2990
50°	2571	2804	2954
55°	2456	2753	2925
60°	2341	2710	2919
65°	2193	2663	2938
70°	2030	2677	3017
75°	1818	2727	3187
80°	1469	2889	3118
85°	1105	2536	2472



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	220.6	3.3
10°-20°	630.2	9.5
20°-30°	947.4	14.3
30°-40°	1128.5	17.0
40°-50°	1155.0	17.4
50°-60°	1039.8	15.7
60°-70°	816.6	12.3
70°-80°	530.0	8.0
80°-90°	163.9	2.5
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°	1798.2	27.1
0°-40°	2926.7	44.1
0°-60°	5121.5	77.2
0°-90°	6632.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6632.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2330	2330	2330	2330	2330	
5°	2319	2324	2313	2326	2328	220
15°	2218	2224	2229	2248	2252	625
25°	2016	2033	2054	2088	2094	929
35°	1742	1763	1805	1850	1862	1087
45°	1405	1439	1502	1559	1572	1083
55°	1047	1093	1173	1234	1247	939
65°	689	742	836	906	923	686
75°	350	417	524	596	613	370
85°	72	133	164	160	160	87
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2329.9	2329.9	2329.9	2329.9	2329.9
2.5°	2332.0	2332.0	2321.4	2332.0	2334.1
5°	2319.3	2323.5	2313.0	2325.7	2327.8
7.5°	2306.7	2306.7	2300.4	2313.0	2315.1
10°	2283.5	2285.6	2283.5	2298.3	2300.4
12.5°	2254.0	2258.2	2260.3	2275.1	2277.2
15°	2218.2	2224.5	2228.7	2247.7	2251.9
17.5°	2178.2	2184.5	2195.0	2216.1	2220.3
20°	2129.7	2138.2	2150.8	2178.2	2184.5
22.5°	2077.1	2085.5	2106.6	2131.8	2142.4
25°	2016.0	2032.8	2053.9	2087.6	2093.9
27.5°	1954.9	1969.6	1997.0	2032.8	2041.3
30°	1883.3	1906.4	1940.1	1976.0	1984.4
32.5°	1813.8	1836.9	1877.0	1914.9	1925.4
35°	1742.1	1763.2	1805.3	1849.6	1862.2
37.5°	1660.0	1687.4	1733.7	1777.9	1790.6
40°	1573.6	1607.3	1660.0	1706.3	1721.1
42.5°	1491.5	1527.3	1579.9	1630.5	1647.3
45°	1405.1	1438.8	1502.0	1558.9	1571.5
47.5°	1316.6	1354.5	1421.9	1478.8	1499.9
50°	1228.1	1268.2	1339.8	1398.8	1411.4
52.5°	1139.7	1181.8	1257.6	1320.8	1327.1
55°	1047.0	1093.3	1173.4	1234.4	1247.1
57.5°	962.7	1002.7	1089.1	1152.3	1167.0
60°	870.0	914.3	1006.9	1065.9	1084.9
62.5°	781.5	827.9	924.8	983.8	1000.6
65°	688.8	741.5	836.3	905.8	922.7
67.5°	608.8	659.4	760.5	827.9	844.7
70°	516.1	573.0	680.4	749.9	766.8
72.5°	436.1	495.0	602.5	669.9	695.2
75°	349.7	417.1	524.5	596.2	613.0
77.5°	265.4	343.4	452.9	507.7	507.7
80°	189.6	271.7	372.9	398.1	402.4
82.5°	124.3	204.3	276.0	273.9	273.9
85°	71.6	132.7	164.3	160.1	160.1
87.5°	27.4	54.8	59.0	59.0	56.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)