

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: P309697

Luminaire Tested: **24FCZ2-65HE-UNV-L82765-HRP-CA125-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: P309697
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: 24FCZ2-65HE-UNV-L82765-HRP-CA125-W2A-U-6500K
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" 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: 4721.0 lumens
Efficiency: N/A
Efficacy: 86.0 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

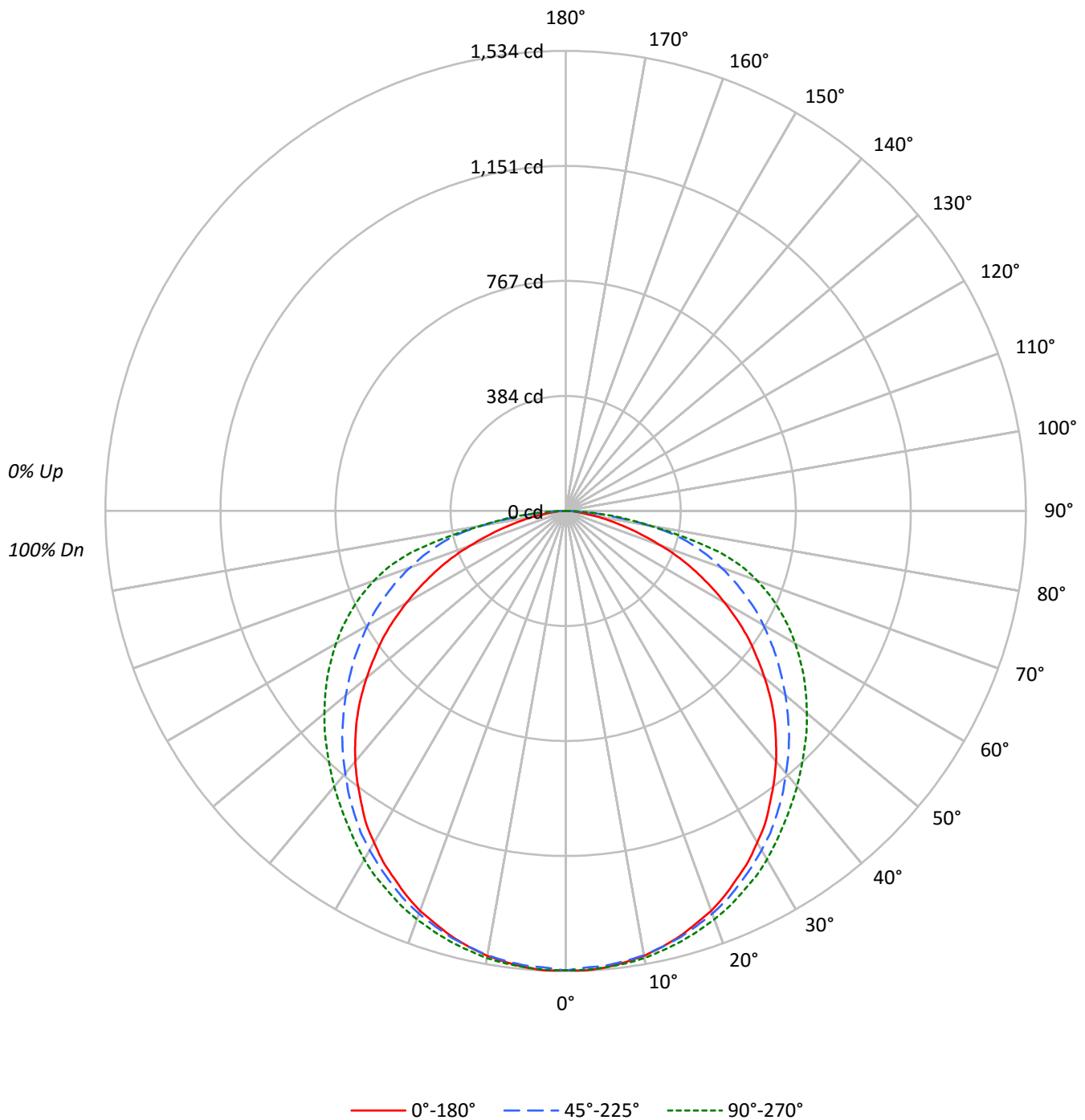
Input Watts (W): 54.9
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	50	30	10	50	30	10
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°	2061	2061	2061
5°	2063	2055	2063
10°	2058	2055	2068
15°	2046	2051	2070
20°	2032	2046	2074
25°	2007	2036	2077
30°	1984	2030	2085
35°	1951	2019	2087
40°	1916	2007	2107
45°	1873	2004	2140
50°	1812	2002	2197
55°	1748	2017	2276
60°	1649	2048	2377
65°	1523	2096	2511
70°	1330	2169	2675
75°	1079	2281	2764
80°	797	2236	2236
85°	610	1647	1862



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	145.1	3.1
10°-20°	416.7	8.8
20°-30°	634.4	13.4
30°-40°	770.2	16.3
40°-50°	813.8	17.2
50°-60°	767.9	16.3
60°-70°	638.5	13.5
70°-80°	420.0	8.9
80°-90°	114.5	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°	1196.1	25.3
0°-40°	1966.4	41.7
0°-60°	3548.0	75.2
0°-90°	4721.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4721.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1532	1532	1532	1532	1532	
5°	1528	1528	1522	1528	1528	145
15°	1468	1470	1472	1486	1486	414
25°	1352	1360	1372	1395	1399	624
35°	1188	1202	1229	1261	1271	744
45°	984	1004	1053	1105	1125	758
55°	745	777	860	941	970	664
65°	478	534	658	755	789	473
75°	208	302	439	520	532	224
85°	40	87	107	119	121	48
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1531.7	1531.7	1531.7	1531.7	1531.7
2.5°	1533.7	1531.7	1523.8	1531.7	1531.7
5°	1527.8	1527.8	1521.8	1527.8	1527.8
7.5°	1517.9	1517.9	1513.9	1521.8	1521.8
10°	1506.0	1506.0	1504.1	1513.9	1513.9
12.5°	1488.3	1490.2	1488.3	1500.1	1500.1
15°	1468.5	1470.5	1472.4	1486.3	1486.3
17.5°	1442.8	1446.7	1450.7	1466.5	1468.5
20°	1419.1	1421.1	1429.0	1446.7	1448.7
22.5°	1387.5	1393.4	1403.3	1421.1	1427.0
25°	1351.9	1359.8	1371.6	1395.4	1399.3
27.5°	1318.3	1324.2	1340.0	1365.7	1373.6
30°	1276.8	1286.7	1306.4	1332.1	1342.0
32.5°	1237.2	1247.1	1270.8	1298.5	1306.4
35°	1187.8	1201.7	1229.3	1261.0	1270.8
37.5°	1140.4	1154.2	1187.8	1223.4	1235.3
40°	1091.0	1106.8	1142.4	1183.9	1199.7
42.5°	1037.6	1059.4	1098.9	1144.4	1162.1
45°	984.3	1004.0	1053.4	1104.8	1124.6
47.5°	926.9	950.7	1004.0	1065.3	1089.0
50°	865.7	895.3	956.6	1023.8	1049.5
52.5°	804.4	838.0	907.2	982.3	1010.0
55°	745.1	776.7	859.7	940.8	970.4
57.5°	679.9	719.4	810.3	897.3	926.9
60°	612.7	656.2	760.9	851.8	883.5
62.5°	545.5	594.9	713.5	804.4	838.0
65°	478.3	533.6	658.2	755.0	788.6
67.5°	413.1	474.3	606.8	703.6	737.2
70°	338.0	415.0	551.4	646.3	679.9
72.5°	268.8	357.7	498.1	587.0	616.6
75°	207.5	302.4	438.8	519.8	531.7
77.5°	152.2	247.1	377.5	405.2	407.1
80°	102.8	197.6	288.6	284.6	288.6
82.5°	67.2	148.2	181.8	203.6	205.5
85°	39.5	87.0	106.7	118.6	120.6
87.5°	19.8	29.6	37.6	39.5	43.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)