

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: P310381

Luminaire Tested: **24FCZ2-65HE-UNV-L82765-RDP-CP125-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: P310381  
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: 24FCZ2-65HE-UNV-L82765-RDP-CP125-W2A-U-6500K  
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" POLYCARB 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: 4105.0 lumens  
Efficiency: N/A  
Efficacy: 74.8 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

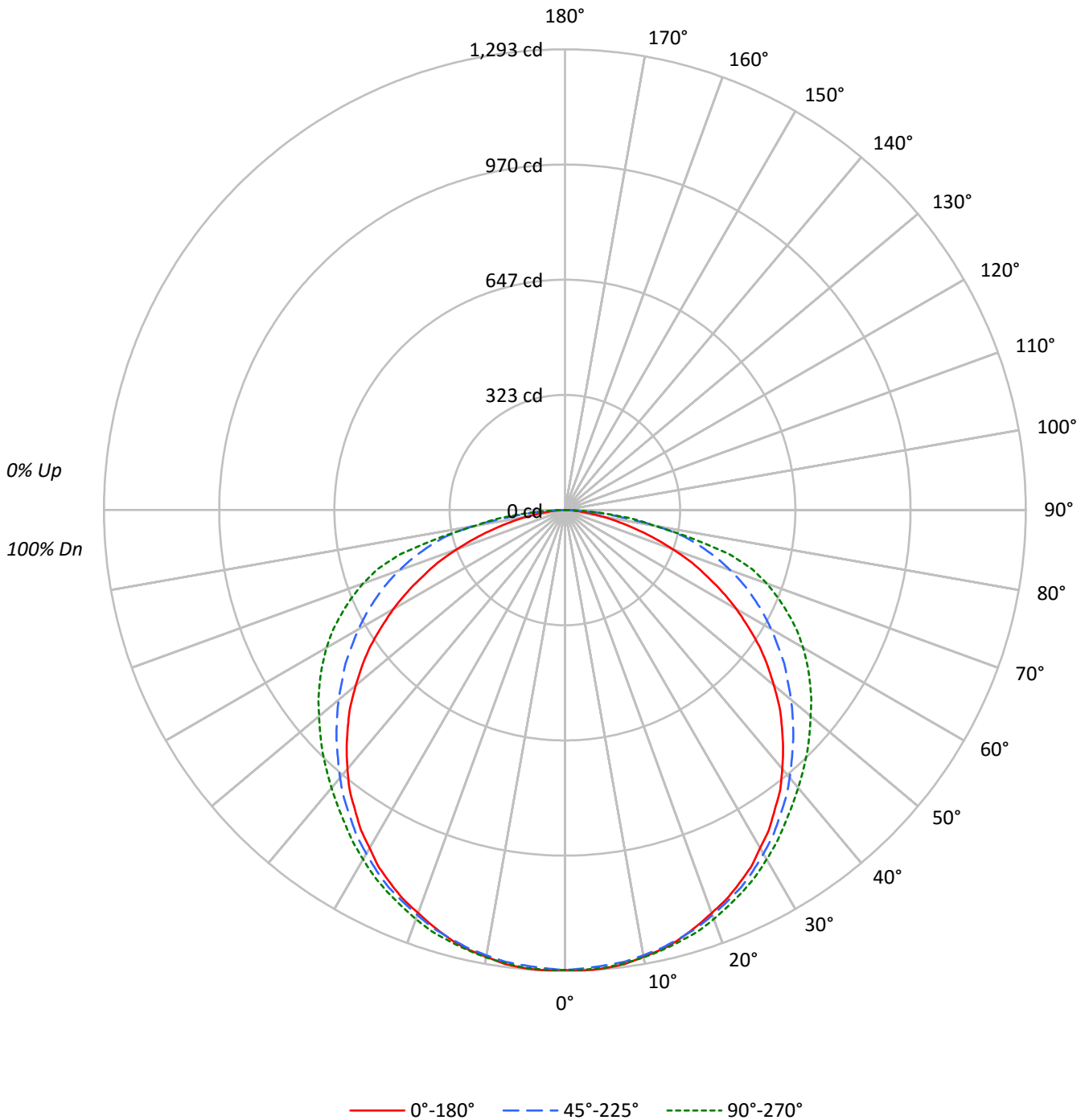
Input Watts (W): 54.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	1737	1737	1737
5°	1744	1733	1741
10°	1739	1733	1741
15°	1736	1733	1744
20°	1723	1732	1749
25°	1717	1735	1753
30°	1702	1730	1759
35°	1686	1726	1766
40°	1666	1724	1788
45°	1639	1724	1829
50°	1603	1735	1884
55°	1562	1762	1968
60°	1496	1797	2077
65°	1400	1861	2204
70°	1273	1947	2371
75°	1080	2053	2477
80°	852	2066	2004
85°	628	1572	1760



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	122.5	3.0
10°-20°	352.4	8.6
20°-30°	538.9	13.1
30°-40°	658.8	16.0
40°-50°	702.2	17.1
50°-60°	671.4	16.4
60°-70°	568.7	13.9
70°-80°	382.2	9.3
80°-90°	107.8	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°	1013.8	24.7
0°-40°	1672.6	40.7
0°-60°	3046.2	74.2
0°-90°	4105.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4105.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1291	1291	1291	1291	1291	
5°	1291	1289	1283	1289	1289	123
15°	1246	1246	1244	1254	1252	351
25°	1156	1161	1169	1179	1181	533
35°	1026	1034	1051	1071	1075	643
45°	861	876	906	945	961	664
55°	666	690	751	810	839	593
65°	440	485	584	662	692	437
75°	208	283	395	462	476	222
85°	41	84	102	110	114	50
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1290.9	1290.9	1290.9	1290.9	1290.9
2.5°	1292.9	1292.9	1286.8	1290.9	1290.9
5°	1290.9	1288.9	1282.8	1288.9	1288.9
7.5°	1284.8	1282.8	1278.7	1284.8	1282.8
10°	1272.6	1272.6	1268.5	1274.6	1274.6
12.5°	1262.4	1260.4	1258.3	1266.5	1264.4
15°	1246.1	1246.1	1244.1	1254.3	1252.2
17.5°	1225.7	1227.8	1229.8	1238.0	1240.0
20°	1203.4	1207.4	1209.5	1221.7	1221.7
22.5°	1183.0	1185.0	1189.1	1201.3	1201.3
25°	1156.5	1160.6	1168.7	1178.9	1181.0
27.5°	1130.1	1132.1	1142.3	1156.5	1158.6
30°	1095.4	1101.5	1113.8	1130.1	1132.1
32.5°	1064.9	1071.0	1085.3	1101.5	1105.6
35°	1026.2	1034.4	1050.6	1071.0	1075.1
37.5°	991.6	997.7	1018.1	1040.5	1046.6
40°	948.8	961.1	981.4	1007.9	1018.1
42.5°	906.1	918.3	942.7	977.3	989.6
45°	861.3	875.5	906.1	944.8	961.1
47.5°	816.5	832.8	867.4	912.2	930.5
50°	765.6	785.9	828.7	879.6	900.0
52.5°	716.7	741.2	788.0	845.0	871.5
55°	665.8	690.2	751.3	810.4	838.9
57.5°	608.8	641.4	708.6	775.8	806.3
60°	555.9	586.4	667.9	741.2	771.7
62.5°	498.9	539.6	627.1	704.5	735.0
65°	439.8	484.6	584.4	661.7	692.3
67.5°	386.9	435.7	541.6	619.0	649.5
70°	323.7	384.8	494.8	572.2	602.7
72.5°	264.7	331.9	445.9	521.2	549.8
75°	207.7	283.0	395.0	462.2	476.5
77.5°	154.7	234.2	342.1	370.6	360.4
80°	110.0	187.3	266.7	252.5	258.6
82.5°	71.3	142.5	164.9	187.3	193.4
85°	40.7	83.5	101.8	110.0	114.0
87.5°	18.3	30.5	40.7	40.7	38.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)