

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: METALUX

Report Number: P391774

Luminaire Tested: **24CZ2-85VHE-RDP-UNV-L930-CD1-SWPD1-U**

Issue Date: 2/28/2020

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: P391774  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-19)  
Test Lab: INNOVATIONS CENTER(G3)  
Issue Date: 2/28/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-85VHE-RDP-UNV-L930-CD1-SWPD1-U  
Description: 2x4 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND RDP LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4713.1 lumens  
Efficiency: N/A  
Efficacy: 81.4 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

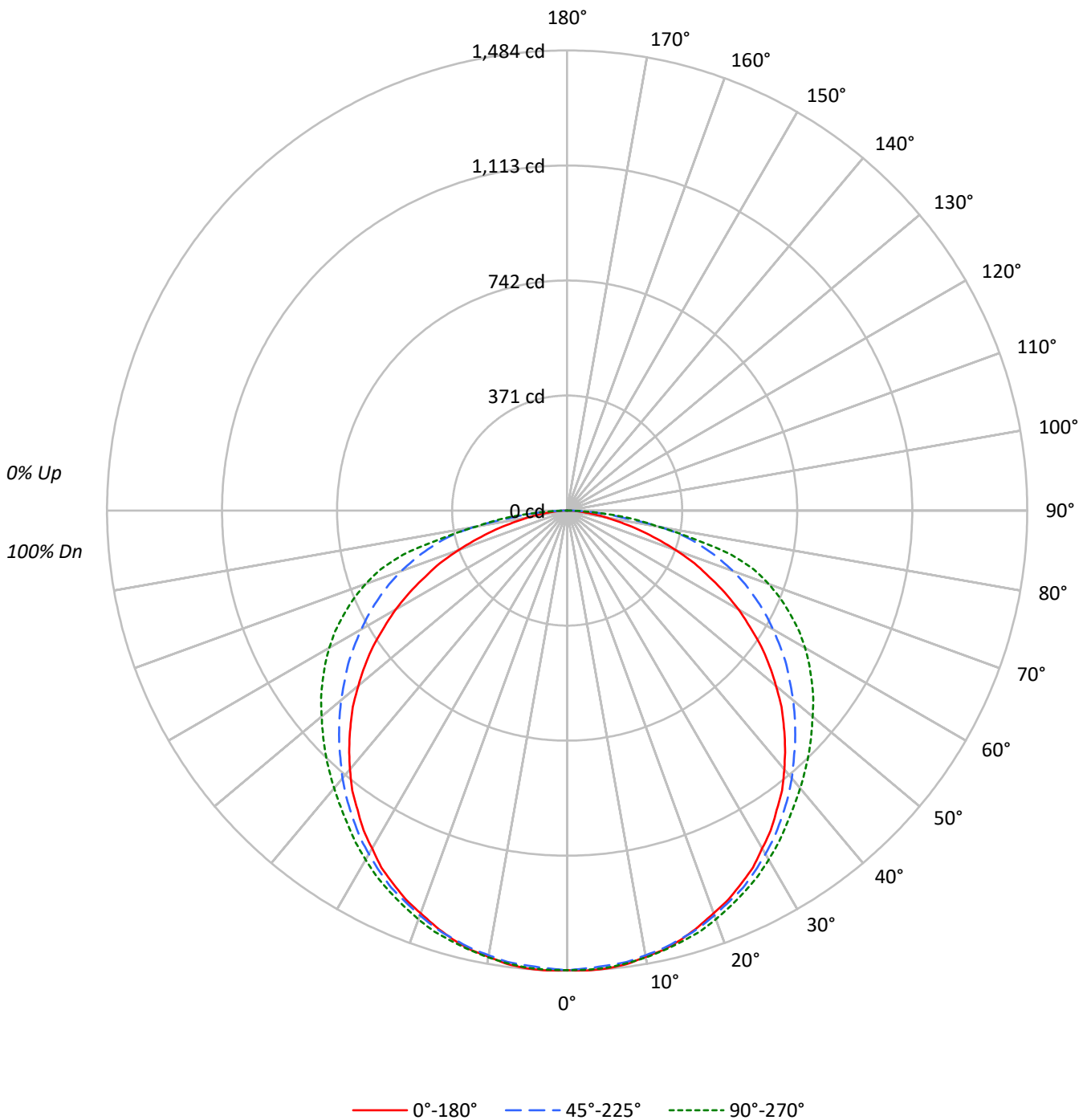
Input Watts (W): 57.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	1994	1994	1994
5°	2002	1989	1999
10°	1996	1990	1999
15°	1993	1990	2003
20°	1978	1988	2008
25°	1971	1992	2013
30°	1954	1987	2019
35°	1935	1981	2027
40°	1913	1979	2053
45°	1882	1979	2100
50°	1840	1992	2163
55°	1793	2023	2259
60°	1717	2063	2384
65°	1608	2136	2530
70°	1462	2235	2722
75°	1240	2358	2844
80°	978	2373	2300
85°	722	1805	2021



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	140.6	3.0
10°-20°	404.6	8.6
20°-30°	618.8	13.1
30°-40°	756.4	16.0
40°-50°	806.2	17.1
50°-60°	770.8	16.4
60°-70°	653.0	13.9
70°-80°	438.9	9.3
80°-90°	123.8	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°	1164.0	24.7
0°-40°	1920.4	40.7
0°-60°	3497.5	74.2
0°-90°	4713.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4713.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1482	1482	1482	1482	1482	
5°	1482	1480	1473	1480	1480	141
15°	1431	1431	1428	1440	1438	403
25°	1328	1332	1342	1354	1356	612
35°	1178	1188	1206	1230	1234	738
45°	989	1005	1040	1085	1103	763
55°	764	792	863	930	963	681
65°	505	556	671	760	795	501
75°	238	325	454	531	547	255
85°	47	96	117	126	131	58
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1482.1	1482.1	1482.1	1482.1	1482.1
2.5°	1484.5	1484.5	1477.5	1482.1	1482.1
5°	1482.1	1479.8	1472.8	1479.8	1479.8
7.5°	1475.1	1472.8	1468.1	1475.1	1472.8
10°	1461.1	1461.1	1456.4	1463.4	1463.4
12.5°	1449.4	1447.1	1444.7	1454.1	1451.7
15°	1430.7	1430.7	1428.4	1440.1	1437.7
17.5°	1407.3	1409.7	1412.0	1421.4	1423.7
20°	1381.6	1386.3	1388.6	1402.7	1402.7
22.5°	1358.2	1360.6	1365.2	1379.3	1379.3
25°	1327.8	1332.5	1341.9	1353.6	1355.9
27.5°	1297.5	1299.8	1311.5	1327.8	1330.2
30°	1257.7	1264.7	1278.8	1297.5	1299.8
32.5°	1222.6	1229.7	1246.0	1264.7	1269.4
35°	1178.2	1187.6	1206.3	1229.7	1234.3
37.5°	1138.5	1145.5	1168.9	1194.6	1201.6
40°	1089.4	1103.4	1126.8	1157.2	1168.9
42.5°	1040.3	1054.3	1082.4	1122.1	1136.1
45°	988.9	1005.2	1040.3	1084.7	1103.4
47.5°	937.4	956.1	995.9	1047.3	1068.4
50°	879.0	902.4	951.5	1009.9	1033.3
52.5°	822.9	850.9	904.7	970.2	1000.6
55°	764.4	792.5	862.6	930.4	963.2
57.5°	699.0	736.4	813.5	890.7	925.8
60°	638.2	673.3	766.8	850.9	886.0
62.5°	572.7	619.5	720.0	808.9	843.9
65°	505.0	556.4	670.9	759.8	794.8
67.5°	444.2	500.3	621.8	710.7	745.7
70°	371.7	441.8	568.1	656.9	692.0
72.5°	303.9	381.1	512.0	598.5	631.2
75°	238.5	324.9	453.5	530.7	547.0
77.5°	177.7	268.8	392.7	425.5	413.8
80°	126.2	215.1	306.2	289.9	296.9
82.5°	81.8	163.6	189.4	215.1	222.1
85°	46.8	95.8	116.9	126.2	130.9
87.5°	21.0	35.1	46.8	46.8	44.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)