

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: P391779

Luminaire Tested: **24CZ2-85VHE-RDP-UNV-L940-CD1-SDWPD1-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: P391779  
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-L940-CD1-SDWPD1-U  
Description: 2x4 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND RDP LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4820.7 lumens  
Efficiency: N/A  
Efficacy: 83.3 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

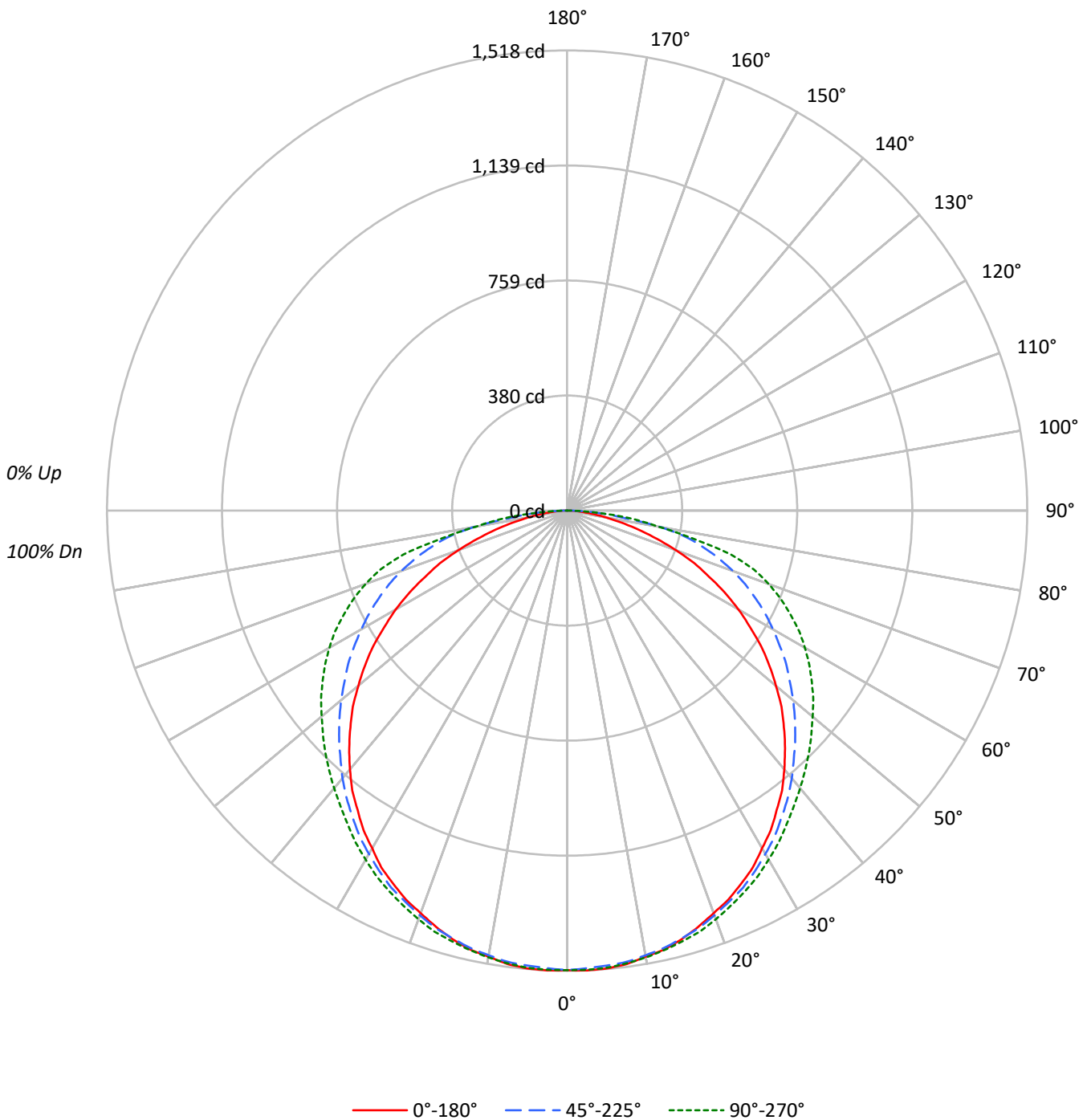
Input Watts (W): 57.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	2040	2040	2040
5°	2048	2035	2044
10°	2042	2035	2045
15°	2038	2035	2048
20°	2023	2034	2054
25°	2016	2038	2059
30°	1999	2032	2066
35°	1979	2027	2074
40°	1957	2024	2100
45°	1925	2025	2148
50°	1882	2037	2212
55°	1834	2070	2311
60°	1757	2111	2439
65°	1644	2185	2588
70°	1496	2286	2784
75°	1268	2412	2909
80°	1000	2427	2353
85°	738	1846	2067



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	143.8	3.0
10°-20°	413.9	8.6
20°-30°	632.9	13.1
30°-40°	773.7	16.0
40°-50°	824.6	17.1
50°-60°	788.4	16.4
60°-70°	667.9	13.9
70°-80°	448.9	9.3
80°-90°	126.6	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°	1190.6	24.7
0°-40°	1964.3	40.7
0°-60°	3577.3	74.2
0°-90°	4820.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4820.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1516	1516	1516	1516	1516	
5°	1516	1514	1506	1514	1514	144
15°	1463	1463	1461	1473	1470	413
25°	1358	1363	1372	1384	1387	626
35°	1205	1215	1234	1258	1262	755
45°	1011	1028	1064	1110	1129	780
55°	782	811	882	952	985	696
65°	516	569	686	777	813	513
75°	244	332	464	543	560	261
85°	48	98	120	129	134	59
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1516.0	1516.0	1516.0	1516.0	1516.0
2.5°	1518.4	1518.4	1511.2	1516.0	1516.0
5°	1516.0	1513.6	1506.4	1513.6	1513.6
7.5°	1508.8	1506.4	1501.6	1508.8	1506.4
10°	1494.5	1494.5	1489.7	1496.8	1496.8
12.5°	1482.5	1480.1	1477.7	1487.3	1484.9
15°	1463.4	1463.4	1461.0	1472.9	1470.5
17.5°	1439.5	1441.8	1444.2	1453.8	1456.2
20°	1413.2	1417.9	1420.3	1434.7	1434.7
22.5°	1389.2	1391.6	1396.4	1410.8	1410.8
25°	1358.2	1362.9	1372.5	1384.5	1386.9
27.5°	1327.1	1329.5	1341.4	1358.2	1360.5
30°	1286.4	1293.6	1307.9	1327.1	1329.5
32.5°	1250.6	1257.7	1274.5	1293.6	1298.4
35°	1205.1	1214.7	1233.8	1257.7	1262.5
37.5°	1164.5	1171.7	1195.6	1221.9	1229.0
40°	1114.3	1128.6	1152.5	1183.6	1195.6
42.5°	1064.1	1078.4	1107.1	1147.7	1162.1
45°	1011.4	1028.2	1064.1	1109.5	1128.6
47.5°	958.8	978.0	1018.6	1071.2	1092.7
50°	899.1	923.0	973.2	1033.0	1056.9
52.5°	841.7	870.4	925.4	992.3	1023.4
55°	781.9	810.6	882.3	951.7	985.1
57.5°	714.9	753.2	832.1	911.0	946.9
60°	652.8	688.6	784.3	870.4	906.2
62.5°	585.8	633.6	736.5	827.3	863.2
65°	516.5	569.1	686.3	777.1	813.0
67.5°	454.3	511.7	636.0	726.9	762.8
70°	380.2	451.9	581.0	671.9	707.8
72.5°	310.8	389.8	523.7	612.1	645.6
75°	243.9	332.4	463.9	542.8	559.5
77.5°	181.7	275.0	401.7	435.2	423.2
80°	129.1	220.0	313.2	296.5	303.7
82.5°	83.7	167.4	193.7	220.0	227.2
85°	47.8	98.0	119.6	129.1	133.9
87.5°	21.5	35.9	47.8	47.8	45.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)