

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: P391773

Luminaire Tested: **24CZ2-85VHE-RDP-UNV-L930-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: P391773  
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-SDWPD1-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: 4656.2 lumens  
Efficiency: N/A  
Efficacy: 80.4 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

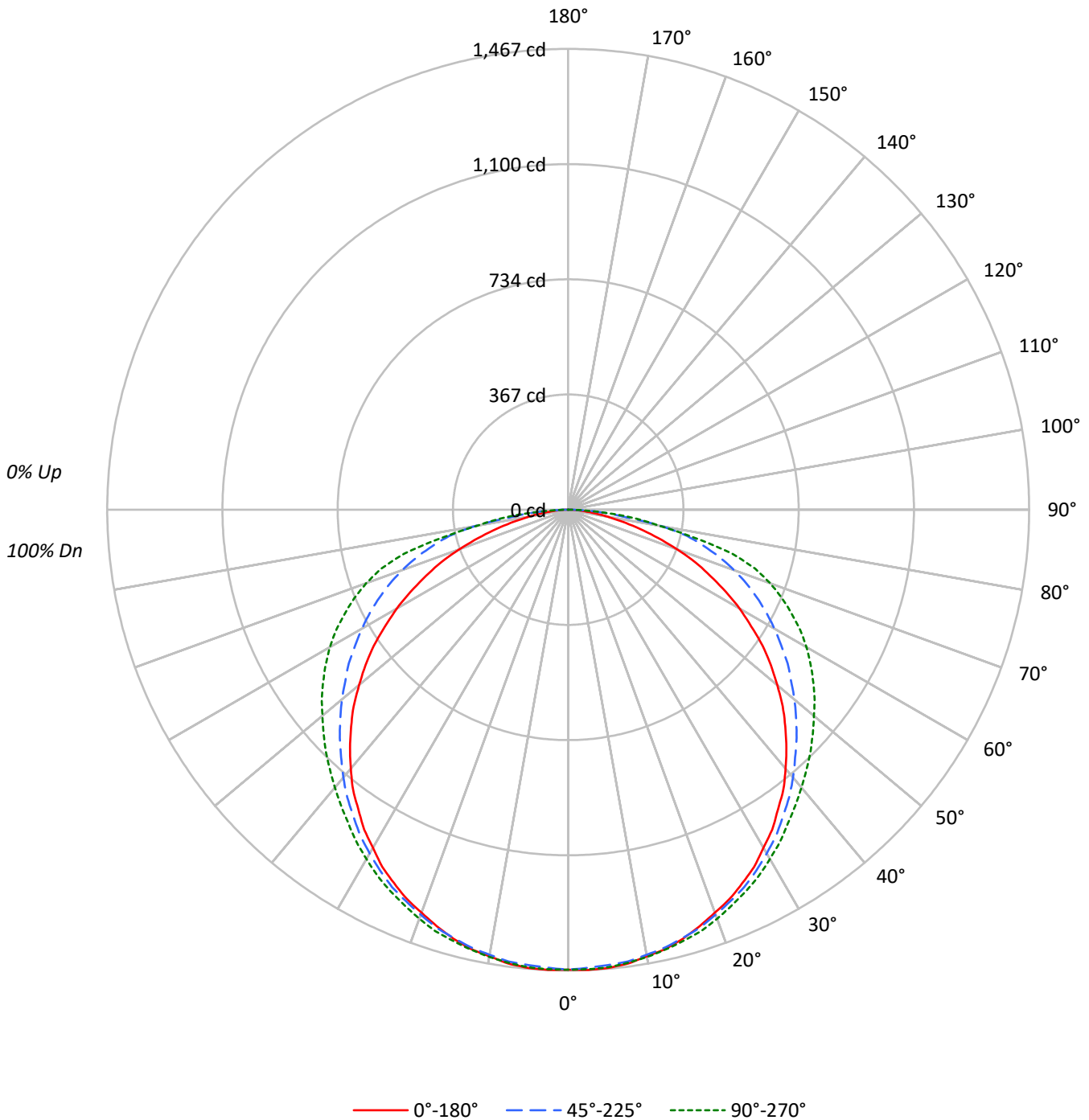
Input Watts (W): 57.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	1970	1970	1970
5°	1978	1965	1974
10°	1972	1966	1975
15°	1969	1966	1979
20°	1954	1964	1984
25°	1947	1968	1989
30°	1930	1963	1995
35°	1912	1957	2003
40°	1890	1955	2028
45°	1859	1956	2074
50°	1818	1968	2137
55°	1772	1999	2232
60°	1697	2038	2355
65°	1588	2110	2500
70°	1445	2208	2689
75°	1225	2329	2809
80°	966	2344	2273
85°	713	1783	1996



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	138.9	3.0
10°-20°	399.7	8.6
20°-30°	611.3	13.1
30°-40°	747.3	16.0
40°-50°	796.5	17.1
50°-60°	761.5	16.4
60°-70°	645.1	13.9
70°-80°	433.6	9.3
80°-90°	122.3	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°	1149.9	24.7
0°-40°	1897.2	40.7
0°-60°	3455.2	74.2
0°-90°	4656.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4656.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1464	1464	1464	1464	1464	
5°	1464	1462	1455	1462	1462	139
15°	1413	1413	1411	1423	1420	399
25°	1312	1316	1326	1337	1340	605
35°	1164	1173	1192	1215	1219	729
45°	977	993	1028	1072	1090	753
55°	755	783	852	919	952	673
65°	499	550	663	751	785	495
75°	236	321	448	524	540	252
85°	46	95	116	125	129	57
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1464.2	1464.2	1464.2	1464.2	1464.2
2.5°	1466.6	1466.6	1459.6	1464.2	1464.2
5°	1464.2	1461.9	1455.0	1461.9	1461.9
7.5°	1457.3	1455.0	1450.4	1457.3	1455.0
10°	1443.5	1443.5	1438.8	1445.8	1445.8
12.5°	1431.9	1429.6	1427.3	1436.5	1434.2
15°	1413.4	1413.4	1411.1	1422.7	1420.4
17.5°	1390.3	1392.6	1395.0	1404.2	1406.5
20°	1364.9	1369.6	1371.9	1385.7	1385.7
22.5°	1341.8	1344.1	1348.8	1362.6	1362.6
25°	1311.8	1316.4	1325.7	1337.2	1339.5
27.5°	1281.8	1284.1	1295.6	1311.8	1314.1
30°	1242.5	1249.5	1263.3	1281.8	1284.1
32.5°	1207.9	1214.8	1231.0	1249.5	1254.1
35°	1164.0	1173.2	1191.7	1214.8	1219.4
37.5°	1124.7	1131.7	1154.8	1180.2	1187.1
40°	1076.2	1090.1	1113.2	1143.2	1154.8
42.5°	1027.7	1041.6	1069.3	1108.6	1122.4
45°	976.9	993.1	1027.7	1071.6	1090.1
47.5°	926.1	944.6	983.9	1034.7	1055.5
50°	868.4	891.5	940.0	997.7	1020.8
52.5°	813.0	840.7	893.8	958.5	988.5
55°	755.2	782.9	852.2	919.2	951.5
57.5°	690.5	727.5	803.7	879.9	914.6
60°	630.5	665.1	757.5	840.7	875.3
62.5°	565.8	612.0	711.3	799.1	833.7
65°	498.9	549.7	662.8	750.6	785.2
67.5°	438.8	494.2	614.3	702.1	736.7
70°	367.2	436.5	561.2	649.0	683.6
72.5°	300.2	376.5	505.8	591.2	623.6
75°	235.6	321.0	448.0	524.3	540.4
77.5°	175.5	265.6	388.0	420.3	408.8
80°	124.7	212.5	302.5	286.4	293.3
82.5°	80.8	161.7	187.1	212.5	219.4
85°	46.2	94.7	115.5	124.7	129.3
87.5°	20.8	34.6	46.2	46.2	43.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)