

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: P388829

Luminaire Tested: **24CZ2-55-SQR-UNV-L935-CD1-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: P388829  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2002-678-2)  
Test Lab: INNOVATION CENTER (G2)  
Issue Date: 2/28/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-55-SQR-UNV-L935-CD1-U  
Description: 2x4 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND SQUARE LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

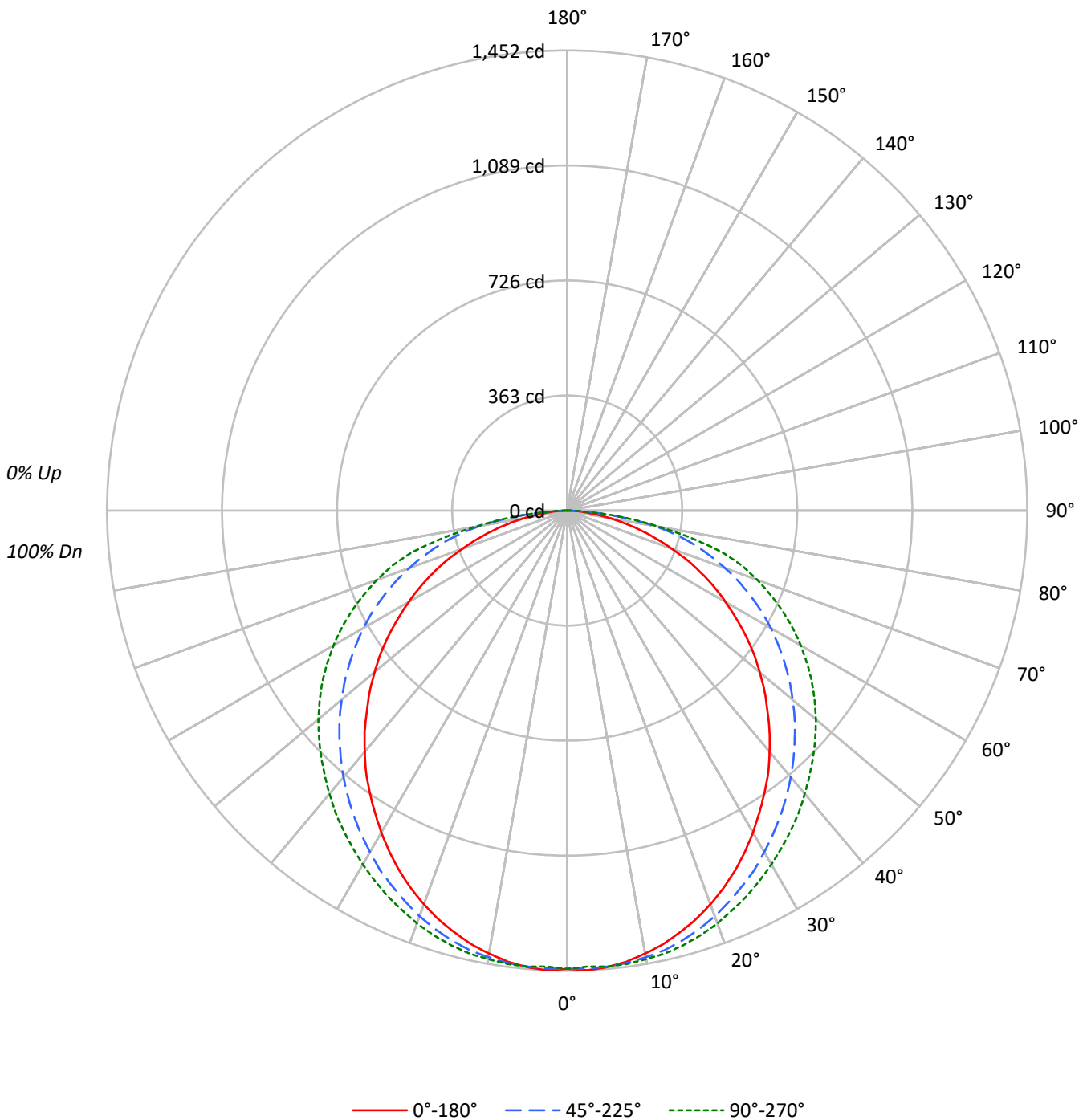
Lumens per Lamp: N/A  
Luminaire Lumens: 4523.6 lumens  
Efficiency: N/A  
Efficacy: 89.6 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.33 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 50.5  
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		89	86	84	82
2	98	89	81	75	95	87	80	74	83	78	73		80	75	71		77	73	69	67
3	89	77	69	62	86	76	68	61	73	66	60		70	64	59		67	62	58	56
4	81	68	59	52	78	67	58	52	64	57	51		62	55	50		60	54	49	47
5	74	61	51	44	72	60	51	44	57	50	44		55	49	43		54	48	43	41
6	68	55	45	39	66	54	45	38	52	44	38		50	43	38		48	42	37	35
7	63	49	40	34	62	49	40	34	47	39	34		45	39	33		44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30		42	35	30		40	34	30	28
9	55	41	33	27	54	41	33	27	39	32	27		38	32	27		37	31	27	25
10	52	38	30	25	50	37	30	24	36	29	24		36	29	24		35	29	24	22

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	1946	1946	1946
5°	1953	1951	1951
10°	1939	1955	1963
15°	1918	1956	1977
20°	1893	1951	1985
25°	1861	1940	1991
30°	1822	1933	2003
35°	1784	1929	2022
40°	1745	1928	2049
45°	1700	1933	2089
50°	1660	1945	2145
55°	1612	1966	2211
60°	1556	1998	2291
65°	1488	2035	2387
70°	1381	2086	2509
75°	1250	2159	2625
80°	1053	2164	2257
85°	807	1638	1638



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	137.3	3.0
10°-20°	394.9	8.7
20°-30°	599.8	13.3
30°-40°	729.6	16.1
40°-50°	776.8	17.2
50°-60°	739.9	16.4
60°-70°	618.7	13.7
70°-80°	412.5	9.1
80°-90°	114.2	2.5
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°	1132.0	25.0
0°-40°	1861.6	41.2
0°-60°	3378.2	74.7
0°-90°	4523.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4523.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1446	1446	1446	1446	1446	
5°	1446	1437	1444	1444	1444	137
15°	1377	1380	1404	1415	1419	388
25°	1253	1270	1307	1329	1341	577
35°	1086	1117	1174	1213	1231	680
45°	893	941	1016	1072	1098	691
55°	687	747	838	911	943	614
65°	468	536	639	718	750	462
75°	240	317	415	486	505	255
85°	52	97	106	105	106	63
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1446.0	1446.0	1446.0	1446.0	1446.0
2.5°	1451.9	1441.5	1446.0	1446.0	1440.0
5°	1446.0	1437.0	1444.5	1444.5	1444.5
7.5°	1435.5	1428.0	1440.0	1443.0	1443.0
10°	1419.1	1416.1	1431.0	1435.5	1437.0
12.5°	1401.1	1399.7	1420.6	1426.5	1431.0
15°	1377.2	1380.2	1404.1	1414.6	1419.1
17.5°	1351.9	1357.8	1384.7	1399.7	1404.1
20°	1322.0	1330.9	1362.3	1377.2	1386.2
22.5°	1289.1	1302.6	1335.4	1353.3	1363.8
25°	1253.3	1269.7	1307.0	1329.4	1341.4
27.5°	1214.4	1235.3	1278.7	1304.1	1316.0
30°	1172.6	1196.5	1244.3	1274.2	1289.1
32.5°	1129.3	1157.7	1209.9	1242.8	1260.7
35°	1086.0	1117.3	1174.1	1212.9	1230.9
37.5°	1042.6	1074.0	1136.8	1178.6	1201.0
40°	993.4	1030.7	1097.9	1144.2	1166.6
42.5°	945.6	985.9	1057.6	1108.4	1132.3
45°	893.3	941.1	1015.8	1072.5	1097.9
47.5°	845.5	893.3	973.9	1033.7	1062.1
50°	793.2	844.0	929.1	994.8	1024.7
52.5°	742.4	794.7	884.3	954.5	984.4
55°	687.1	746.9	838.0	911.2	942.6
57.5°	631.9	696.1	790.2	866.4	897.8
60°	578.1	643.8	742.4	818.6	851.4
62.5°	524.3	590.0	693.1	770.8	802.2
65°	467.5	536.3	639.3	718.5	749.9
67.5°	410.8	482.5	585.6	664.7	694.6
70°	351.0	427.2	530.3	608.0	637.8
72.5°	295.8	371.9	473.5	549.7	578.1
75°	240.5	316.7	415.3	485.5	504.9
77.5°	186.7	262.9	351.0	397.3	401.8
80°	135.9	207.6	279.3	292.8	291.3
82.5°	91.1	155.4	192.7	194.2	198.7
85°	52.3	97.1	106.1	104.6	106.1
87.5°	20.9	34.4	29.9	22.4	22.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)