

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: P388898

Luminaire Tested: **24CZ2-60-SQR-UNV-L930-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: P388898
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: 24CZ2-60-SQR-UNV-L930-CD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

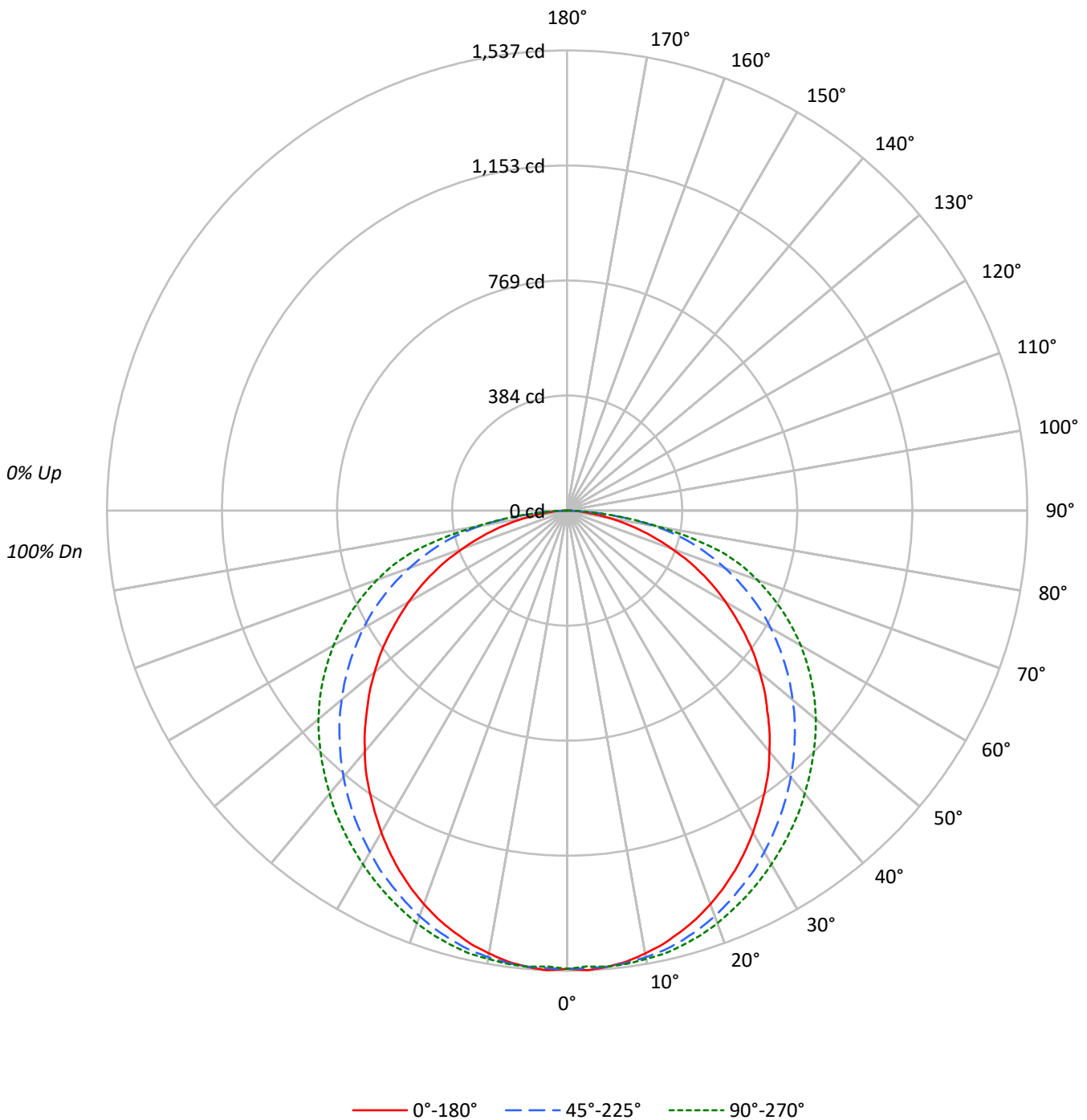
Lumens per Lamp: N/A
Luminaire Lumens: 4787.6 lumens
Efficiency: N/A
Efficacy: 86.1 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.33 / 1.41
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 55.6
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			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	50	30	10
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	100	
1	108	103	98	94	105	100	96	92	96	93	89	92	89	87	89	86	84	82	82	
2	98	89	81	75	95	87	80	74	83	78	73	80	75	71	77	73	69	67	67	
3	89	77	69	62	86	76	68	61	73	66	60	70	64	59	67	62	58	56	56	
4	81	68	59	52	78	67	58	52	64	57	51	62	55	50	60	54	49	47	47	
5	74	61	51	44	72	60	51	44	57	50	44	55	49	43	54	48	43	41	41	
6	68	55	45	39	66	54	45	38	52	44	38	50	43	38	48	42	37	35	35	
7	63	49	40	34	62	49	40	34	47	39	34	45	39	33	44	38	33	31	31	
8	59	45	36	30	57	44	36	30	43	35	30	42	35	30	40	34	30	28	28	
9	55	41	33	27	54	41	33	27	39	32	27	38	32	27	37	31	27	25	25	
10	52	38	30	25	50	37	30	24	36	29	24	36	29	24	35	29	24	22	22	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2059	2059	2059
5°	2067	2065	2065
10°	2052	2069	2078
15°	2030	2070	2092
20°	2003	2064	2101
25°	1969	2054	2108
30°	1928	2046	2120
35°	1888	2041	2140
40°	1847	2041	2169
45°	1799	2046	2211
50°	1757	2058	2270
55°	1706	2080	2340
60°	1646	2114	2425
65°	1575	2154	2527
70°	1461	2208	2656
75°	1323	2285	2778
80°	1115	2290	2389
85°	854	1732	1732



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	145.3	3.0
10°-20°	417.9	8.7
20°-30°	634.8	13.3
30°-40°	772.2	16.1
40°-50°	822.1	17.2
50°-60°	783.0	16.4
60°-70°	654.8	13.7
70°-80°	436.6	9.1
80°-90°	120.8	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°	1198.0	25.0
0°-40°	1970.2	41.2
0°-60°	3575.4	74.7
0°-90°	4787.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4787.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1530	1530	1530	1530	1530	
5°	1530	1521	1529	1529	1529	145
15°	1458	1461	1486	1497	1502	411
25°	1326	1344	1383	1407	1420	611
35°	1149	1182	1243	1284	1303	719
45°	945	996	1075	1135	1162	731
55°	727	790	887	964	998	650
65°	495	568	677	760	794	489
75°	254	335	440	514	534	270
85°	55	103	112	111	112	67
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1530.3	1530.3	1530.3	1530.3	1530.3
2.5°	1536.7	1525.6	1530.3	1530.3	1524.0
5°	1530.3	1520.9	1528.8	1528.8	1528.8
7.5°	1519.3	1511.4	1524.0	1527.2	1527.2
10°	1501.9	1498.7	1514.5	1519.3	1520.9
12.5°	1482.9	1481.3	1503.5	1509.8	1514.5
15°	1457.6	1460.8	1486.1	1497.2	1501.9
17.5°	1430.8	1437.1	1465.5	1481.3	1486.1
20°	1399.1	1408.6	1441.8	1457.6	1467.1
22.5°	1364.4	1378.6	1413.4	1432.3	1443.4
25°	1326.4	1343.8	1383.3	1407.0	1419.7
27.5°	1285.3	1307.4	1353.3	1380.2	1392.8
30°	1241.0	1266.3	1316.9	1348.5	1364.4
32.5°	1195.2	1225.2	1280.6	1315.3	1334.3
35°	1149.3	1182.5	1242.6	1283.7	1302.7
37.5°	1103.5	1136.7	1203.1	1247.4	1271.1
40°	1051.3	1090.8	1162.0	1211.0	1234.7
42.5°	1000.7	1043.4	1119.3	1173.1	1198.4
45°	945.4	996.0	1075.0	1135.1	1162.0
47.5°	894.8	945.4	1030.8	1094.0	1124.0
50°	839.5	893.2	983.3	1052.9	1084.5
52.5°	785.7	841.1	935.9	1010.2	1041.8
55°	727.2	790.5	886.9	964.4	997.6
57.5°	668.7	736.7	836.3	916.9	950.1
60°	611.8	681.4	785.7	866.4	901.1
62.5°	554.9	624.5	733.6	815.8	849.0
65°	494.8	567.6	676.6	760.4	793.6
67.5°	434.8	510.6	619.7	703.5	735.1
70°	371.5	452.1	561.2	643.4	675.1
72.5°	313.0	393.7	501.2	581.8	611.8
75°	254.5	335.2	439.5	513.8	534.4
77.5°	197.6	278.2	371.5	420.5	425.3
80°	143.9	219.8	295.6	309.9	308.3
82.5°	96.4	164.4	203.9	205.5	210.3
85°	55.3	102.8	112.2	110.7	112.2
87.5°	22.1	36.4	31.6	23.7	23.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)