

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: P388929

Luminaire Tested: **24CZ2-60HE-SQR-UNV-L950-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: P388929  
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: 24CZ2-60HE-SQR-UNV-L950-CD1-SDWPD1-U  
Description: 2x4 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND SQUARE LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5107.0 lumens  
Efficiency: N/A  
Efficacy: 115.8 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

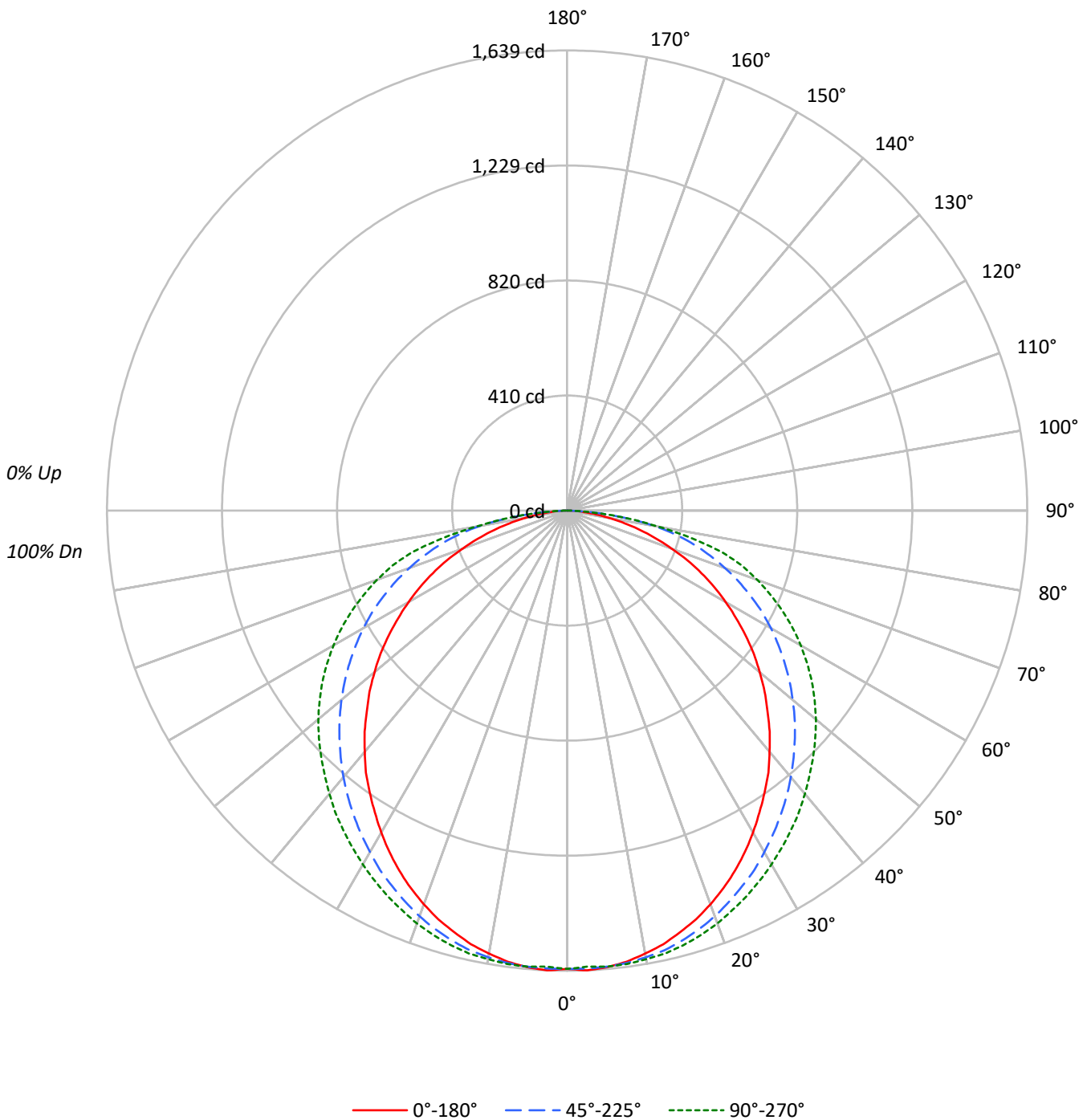
Input Watts (W): 44.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	2196	2196	2196
5°	2205	2203	2203
10°	2189	2207	2216
15°	2166	2208	2232
20°	2137	2202	2241
25°	2101	2191	2248
30°	2057	2183	2261
35°	2014	2177	2282
40°	1970	2177	2313
45°	1919	2182	2359
50°	1874	2196	2422
55°	1820	2219	2496
60°	1756	2255	2587
65°	1680	2298	2695
70°	1559	2355	2833
75°	1411	2437	2963
80°	1189	2444	2548
85°	911	1848	1848



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	155.0	3.0
10°-20°	445.8	8.7
20°-30°	677.2	13.3
30°-40°	823.7	16.1
40°-50°	877.0	17.2
50°-60°	835.3	16.4
60°-70°	698.5	13.7
70°-80°	465.7	9.1
80°-90°	128.8	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°	1278.0	25.0
0°-40°	2101.7	41.2
0°-60°	3813.9	74.7
0°-90°	5107.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5107.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1632	1632	1632	1632	1632	
5°	1632	1622	1631	1631	1631	155
15°	1555	1558	1585	1597	1602	439
25°	1415	1433	1476	1501	1514	651
35°	1226	1261	1326	1369	1390	767
45°	1008	1062	1147	1211	1240	780
55°	776	843	946	1029	1064	693
65°	528	605	722	811	847	521
75°	272	358	469	548	570	288
85°	59	110	120	118	120	71
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1632.4	1632.4	1632.4	1632.4	1632.4
2.5°	1639.2	1627.4	1632.4	1632.4	1625.7
5°	1632.4	1622.3	1630.8	1630.8	1630.8
7.5°	1620.6	1612.2	1625.7	1629.1	1629.1
10°	1602.1	1598.7	1615.6	1620.6	1622.3
12.5°	1581.9	1580.2	1603.8	1610.5	1615.6
15°	1554.9	1558.2	1585.2	1597.0	1602.1
17.5°	1526.2	1532.9	1563.3	1580.2	1585.2
20°	1492.5	1502.6	1538.0	1554.9	1565.0
22.5°	1455.4	1470.6	1507.7	1527.9	1539.7
25°	1414.9	1433.4	1475.6	1500.9	1514.4
27.5°	1371.1	1394.7	1443.6	1472.2	1485.7
30°	1323.8	1350.8	1404.8	1438.5	1455.4
32.5°	1274.9	1307.0	1366.0	1403.1	1423.3
35°	1226.0	1261.4	1325.5	1369.4	1389.6
37.5°	1177.1	1212.5	1283.4	1330.6	1355.9
40°	1121.5	1163.6	1239.5	1291.8	1317.1
42.5°	1067.5	1113.0	1194.0	1251.3	1278.3
45°	1008.5	1062.4	1146.8	1210.8	1239.5
47.5°	954.5	1008.5	1099.5	1167.0	1199.0
50°	895.5	952.8	1048.9	1123.1	1156.9
52.5°	838.1	897.2	998.4	1077.6	1111.3
55°	775.7	843.2	946.1	1028.7	1064.1
57.5°	713.4	785.9	892.1	978.1	1013.5
60°	652.6	726.8	838.1	924.2	961.3
62.5°	591.9	666.1	782.5	870.2	905.6
65°	527.8	605.4	721.8	811.2	846.6
67.5°	463.8	544.7	661.1	750.5	784.2
70°	396.3	482.3	598.7	686.4	720.1
72.5°	333.9	419.9	534.6	620.6	652.6
75°	271.5	357.5	468.8	548.1	570.0
77.5°	210.8	296.8	396.3	448.6	453.6
80°	153.5	234.4	315.4	330.5	328.9
82.5°	102.9	175.4	217.5	219.2	224.3
85°	59.0	109.6	119.7	118.0	119.7
87.5°	23.6	38.8	33.7	25.3	25.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)