

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: P388925

Luminaire Tested: **24CZ2-60HE-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: P388925
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-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: 4880.8 lumens
Efficiency: N/A
Efficacy: 110.7 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

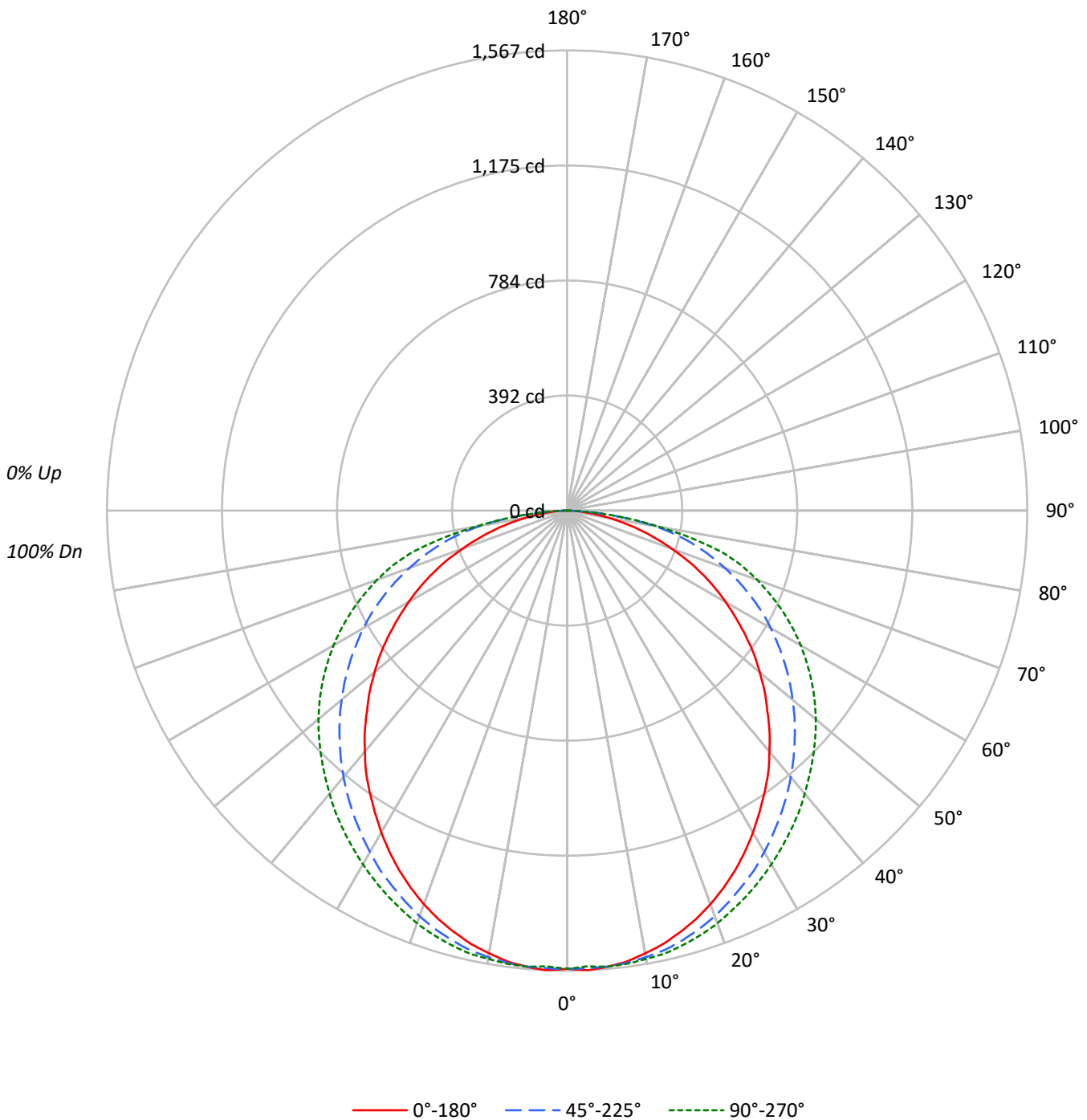
Input Watts (W): 44.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20			20				20			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°	2099	2099	2099
5°	2107	2105	2105
10°	2092	2109	2118
15°	2070	2110	2133
20°	2042	2105	2142
25°	2007	2094	2149
30°	1966	2086	2161
35°	1925	2081	2181
40°	1883	2081	2211
45°	1834	2085	2254
50°	1791	2098	2314
55°	1739	2121	2386
60°	1678	2155	2472
65°	1606	2196	2576
70°	1490	2251	2707
75°	1349	2329	2832
80°	1137	2335	2435
85°	871	1766	1766



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	148.1	3.0
10°-20°	426.1	8.7
20°-30°	647.2	13.3
30°-40°	787.2	16.1
40°-50°	838.1	17.2
50°-60°	798.3	16.4
60°-70°	667.6	13.7
70°-80°	445.1	9.1
80°-90°	123.2	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°	1221.4	25.0
0°-40°	2008.6	41.2
0°-60°	3645.0	74.7
0°-90°	4880.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4880.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1560	1560	1560	1560	1560	
5°	1560	1550	1558	1558	1558	148
15°	1486	1489	1515	1526	1531	419
25°	1352	1370	1410	1434	1447	623
35°	1172	1206	1267	1309	1328	733
45°	964	1015	1096	1157	1185	745
55°	741	806	904	983	1017	663
65°	504	579	690	775	809	498
75°	260	342	448	524	545	275
85°	56	105	114	113	114	68
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1560.1	1560.1	1560.1	1560.1	1560.1
2.5°	1566.6	1555.3	1560.1	1560.1	1553.7
5°	1560.1	1550.5	1558.5	1558.5	1558.5
7.5°	1548.9	1540.8	1553.7	1556.9	1556.9
10°	1531.1	1527.9	1544.0	1548.9	1550.5
12.5°	1511.8	1510.2	1532.7	1539.2	1544.0
15°	1486.0	1489.2	1515.0	1526.3	1531.1
17.5°	1458.6	1465.0	1494.1	1510.2	1515.0
20°	1426.4	1436.0	1469.9	1486.0	1495.7
22.5°	1390.9	1405.4	1440.9	1460.2	1471.5
25°	1352.2	1370.0	1410.3	1434.4	1447.3
27.5°	1310.3	1332.9	1379.6	1407.0	1419.9
30°	1265.2	1291.0	1342.6	1374.8	1390.9
32.5°	1218.5	1249.1	1305.5	1340.9	1360.3
35°	1171.7	1205.6	1266.8	1308.7	1328.1
37.5°	1125.0	1158.8	1226.5	1271.6	1295.8
40°	1071.8	1112.1	1184.6	1234.6	1258.8
42.5°	1020.2	1063.7	1141.1	1195.9	1221.7
45°	963.8	1015.4	1096.0	1157.2	1184.6
47.5°	912.2	963.8	1050.8	1115.3	1145.9
50°	855.8	910.6	1002.5	1073.4	1105.6
52.5°	801.0	857.4	954.1	1029.9	1062.1
55°	741.4	805.9	904.2	983.1	1017.0
57.5°	681.8	751.1	852.6	934.8	968.6
60°	623.7	694.6	801.0	883.2	918.7
62.5°	565.7	636.6	747.8	831.6	865.5
65°	504.5	578.6	689.8	775.2	809.1
67.5°	443.2	520.6	631.8	717.2	749.4
70°	378.8	461.0	572.2	656.0	688.2
72.5°	319.1	401.3	510.9	593.1	623.7
75°	259.5	341.7	448.1	523.8	544.8
77.5°	201.5	283.7	378.8	428.7	433.6
80°	146.7	224.0	301.4	315.9	314.3
82.5°	98.3	167.6	207.9	209.5	214.4
85°	56.4	104.8	114.4	112.8	114.4
87.5°	22.6	37.1	32.2	24.2	24.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)