

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: P388707

Luminaire Tested: **24CZ2-45HE-SQR-UNV-L935-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: P388707
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: 24CZ2-45HE-SQR-UNV-L935-CD1-SDWPD1-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: 3630.0 lumens
Efficiency: N/A
Efficacy: 102.8 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

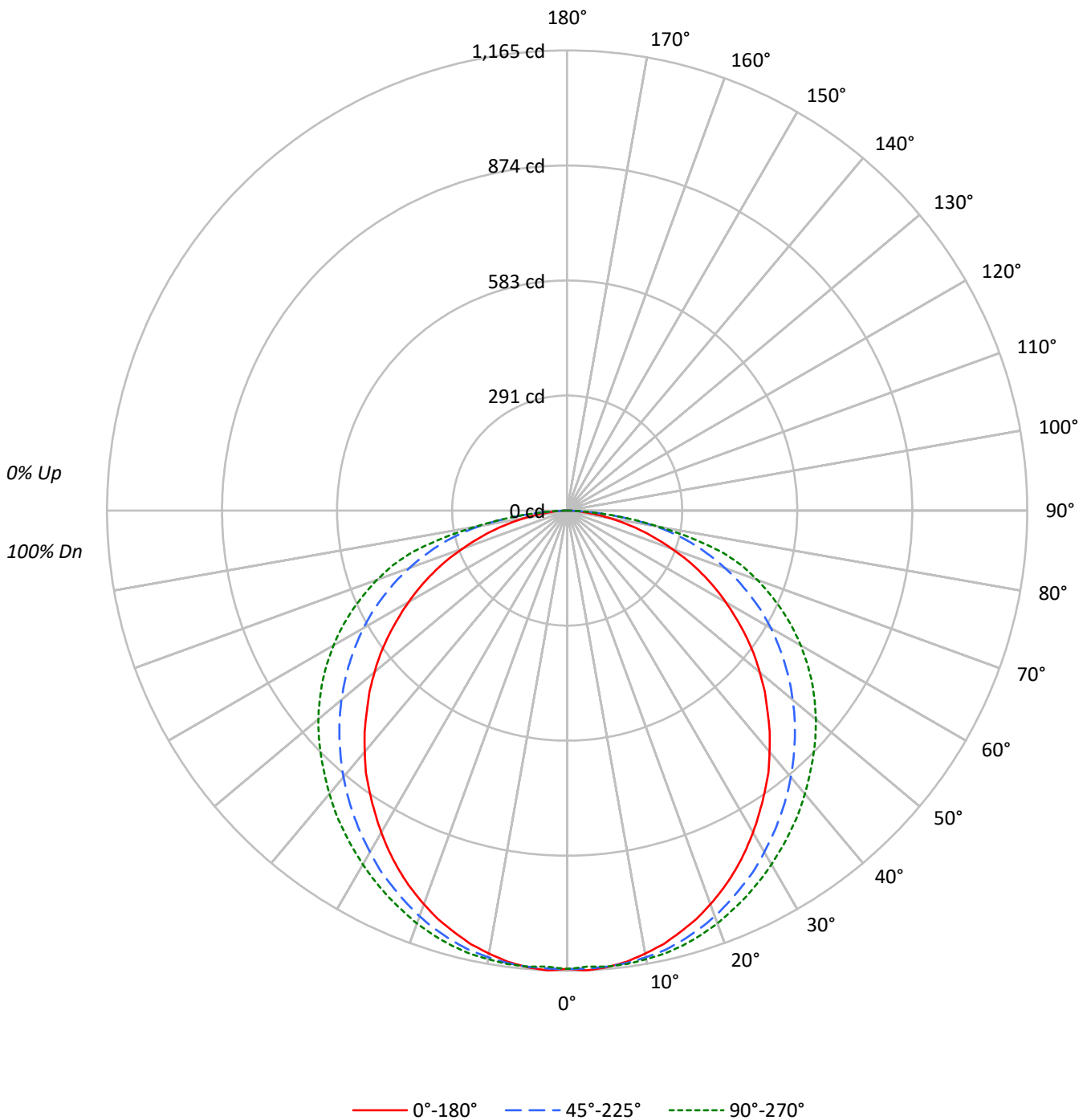
Input Watts (W): 35.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1561	1561	1561
5°	1567	1566	1566
10°	1556	1569	1575
15°	1539	1570	1586
20°	1519	1565	1593
25°	1493	1557	1598
30°	1462	1551	1607
35°	1431	1548	1622
40°	1400	1547	1644
45°	1364	1551	1676
50°	1332	1561	1721
55°	1293	1578	1774
60°	1248	1603	1838
65°	1195	1633	1916
70°	1108	1674	2013
75°	1003	1732	2106
80°	845	1737	1811
85°	648	1314	1314



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	110.1	3.0
10°-20°	316.9	8.7
20°-30°	481.3	13.3
30°-40°	585.5	16.1
40°-50°	623.3	17.2
50°-60°	593.7	16.4
60°-70°	496.5	13.7
70°-80°	331.0	9.1
80°-90°	91.6	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°	908.4	25.0
0°-40°	1493.8	41.2
0°-60°	2710.9	74.7
0°-90°	3630.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3630.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1160	1160	1160	1160	1160	
5°	1160	1153	1159	1159	1159	110
15°	1105	1108	1127	1135	1139	312
25°	1006	1019	1049	1067	1076	463
35°	871	897	942	973	988	545
45°	717	755	815	861	881	554
55°	551	599	672	731	756	493
65°	375	430	513	577	602	371
75°	193	254	333	390	405	204
85°	42	78	85	84	85	51
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1160.3	1160.3	1160.3	1160.3	1160.3
2.5°	1165.1	1156.7	1160.3	1160.3	1155.5
5°	1160.3	1153.1	1159.1	1159.1	1159.1
7.5°	1151.9	1145.9	1155.5	1157.9	1157.9
10°	1138.7	1136.4	1148.3	1151.9	1153.1
12.5°	1124.4	1123.2	1139.9	1144.7	1148.3
15°	1105.2	1107.6	1126.8	1135.2	1138.7
17.5°	1084.8	1089.6	1111.2	1123.2	1126.8
20°	1060.8	1068.0	1093.2	1105.2	1112.4
22.5°	1034.5	1045.3	1071.6	1086.0	1094.4
25°	1005.7	1018.9	1048.8	1066.8	1076.4
27.5°	974.5	991.3	1026.1	1046.4	1056.0
30°	941.0	960.1	998.5	1022.5	1034.5
32.5°	906.2	929.0	970.9	997.3	1011.7
35°	871.4	896.6	942.2	973.3	987.7
37.5°	836.7	861.9	912.2	945.8	963.7
40°	797.1	827.1	881.0	918.2	936.2
42.5°	758.8	791.1	848.7	889.4	908.6
45°	716.8	755.2	815.1	860.7	881.0
47.5°	678.5	716.8	781.5	829.5	852.3
50°	636.5	677.3	745.6	798.3	822.3
52.5°	595.7	637.7	709.6	766.0	789.9
55°	551.4	599.3	672.5	731.2	756.4
57.5°	507.0	558.6	634.1	695.2	720.4
60°	463.9	516.6	595.7	656.9	683.2
62.5°	420.7	473.5	556.2	618.5	643.7
65°	375.2	430.3	513.0	576.6	601.7
67.5°	329.6	387.2	469.9	533.4	557.4
70°	281.7	342.8	425.5	487.9	511.8
72.5°	237.3	298.5	380.0	441.1	463.9
75°	193.0	254.1	333.2	389.6	405.2
77.5°	149.8	211.0	281.7	318.8	322.4
80°	109.1	166.6	224.2	234.9	233.7
82.5°	73.1	124.7	154.6	155.8	159.4
85°	42.0	77.9	85.1	83.9	85.1
87.5°	16.8	27.6	24.0	18.0	18.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)