

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: P389763

Luminaire Tested: **24CZ2-45VHE-S-UNV-L940-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: P389763
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-1)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-45VHE-S-UNV-L940-CD1-SDWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND SMOOTH LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3992.5 lumens
Efficiency: N/A
Efficacy: 134.9 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

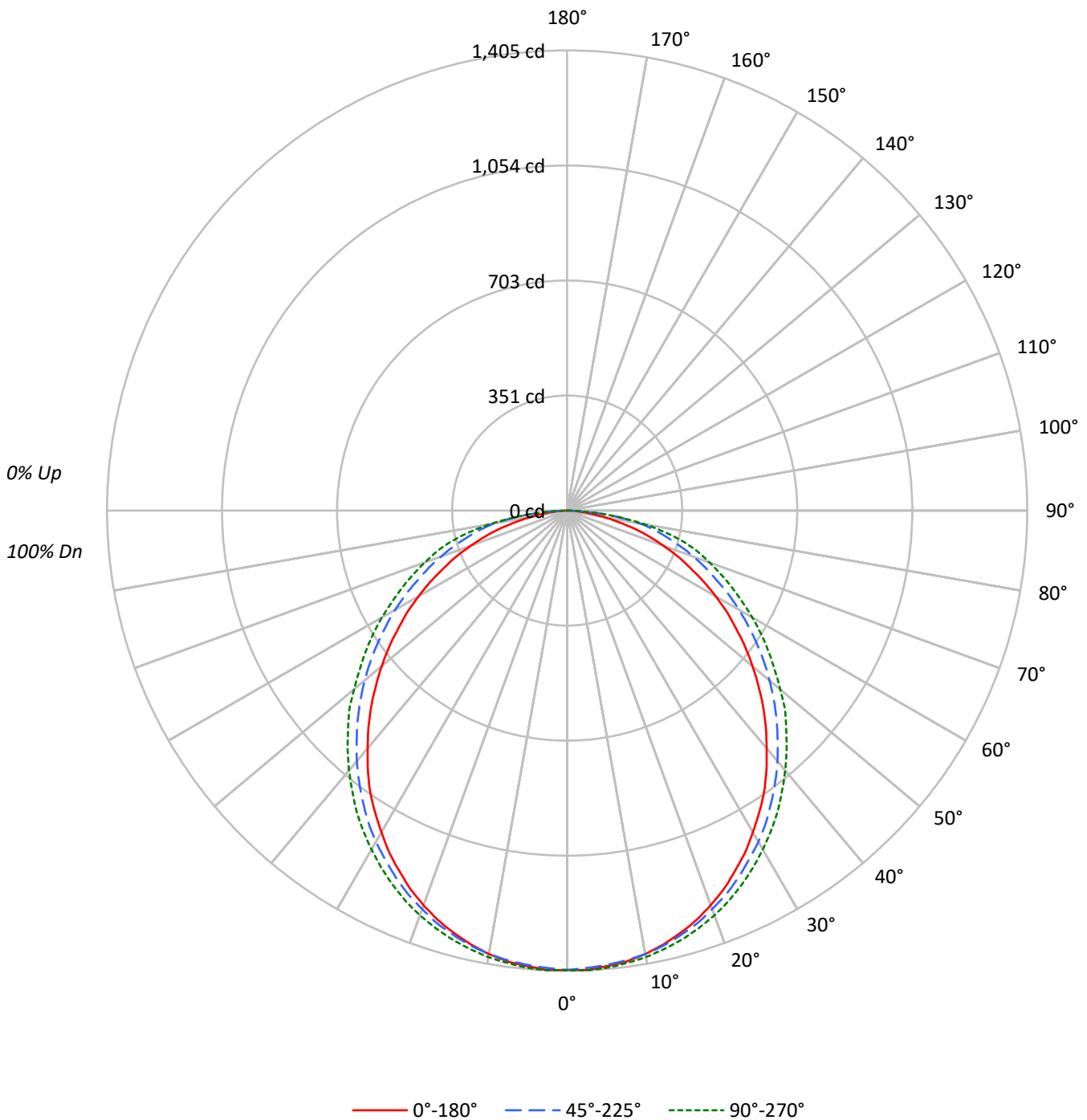
Input Watts (W): 29.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20					20					20					20					20					
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	50	30	10	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	108	103	99	95	106	101	97	93	97	93	90	93	90	88	89	87	85	83					83			
2	98	90	83	77	96	88	81	76	84	79	74	81	76	72	78	74	71	69					69			
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58					58			
4	82	70	61	54	80	68	60	54	66	59	53	63	57	52	61	56	51	49					49			
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42					42			
6	70	56	47	40	68	55	47	40	53	46	40	52	45	40	50	44	39	37					37			
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33					33			
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29					29			
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26					26			
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24					24			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1887	1887	1887
5°	1886	1881	1893
10°	1878	1878	1892
15°	1860	1869	1888
20°	1836	1854	1883
25°	1802	1836	1871
30°	1761	1815	1856
35°	1723	1785	1841
40°	1664	1755	1820
45°	1610	1721	1800
50°	1548	1688	1779
55°	1479	1657	1761
60°	1410	1631	1757
65°	1320	1603	1769
70°	1222	1611	1816
75°	1094	1642	1918
80°	884	1740	1877
85°	665	1527	1488



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	132.8	3.3
10°-20°	379.4	9.5
20°-30°	570.3	14.3
30°-40°	679.4	17.0
40°-50°	695.3	17.4
50°-60°	626.0	15.7
60°-70°	491.6	12.3
70°-80°	319.1	8.0
80°-90°	98.7	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°	1082.5	27.1
0°-40°	1761.9	44.1
0°-60°	3083.2	77.2
0°-90°	3992.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3992.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1403	1403	1403	1403	1403	
5°	1396	1399	1392	1400	1401	133
15°	1335	1339	1342	1353	1356	377
25°	1214	1224	1236	1257	1261	559
35°	1049	1062	1087	1113	1121	654
45°	846	866	904	938	946	652
55°	630	658	706	743	751	565
65°	415	446	504	545	556	413
75°	210	251	316	359	369	223
85°	43	80	99	96	96	52
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1402.6	1402.6	1402.6	1402.6	1402.6
2.5°	1403.9	1403.9	1397.5	1403.9	1405.1
5°	1396.3	1398.8	1392.4	1400.1	1401.3
7.5°	1388.6	1388.6	1384.8	1392.4	1393.7
10°	1374.7	1376.0	1374.7	1383.6	1384.8
12.5°	1356.9	1359.5	1360.7	1369.6	1370.9
15°	1335.4	1339.2	1341.7	1353.1	1355.7
17.5°	1311.3	1315.1	1321.4	1334.1	1336.6
20°	1282.1	1287.2	1294.8	1311.3	1315.1
22.5°	1250.4	1255.5	1268.2	1283.4	1289.7
25°	1213.6	1223.8	1236.5	1256.8	1260.6
27.5°	1176.9	1185.7	1202.2	1223.8	1228.9
30°	1133.7	1147.7	1168.0	1189.5	1194.6
32.5°	1091.9	1105.8	1129.9	1152.8	1159.1
35°	1048.8	1061.5	1086.8	1113.4	1121.1
37.5°	999.3	1015.8	1043.7	1070.3	1077.9
40°	947.3	967.6	999.3	1027.2	1036.1
42.5°	897.9	919.4	951.1	981.6	991.7
45°	845.9	866.2	904.2	938.4	946.1
47.5°	792.6	815.4	856.0	890.3	902.9
50°	739.3	763.4	806.6	842.1	849.7
52.5°	686.1	711.4	757.1	795.1	798.9
55°	630.3	658.2	706.4	743.1	750.8
57.5°	579.6	603.6	655.6	693.7	702.6
60°	523.8	550.4	606.2	641.7	653.1
62.5°	470.5	498.4	556.7	592.2	602.4
65°	414.7	446.4	503.5	545.3	555.5
67.5°	366.5	396.9	457.8	498.4	508.5
70°	310.7	344.9	409.6	451.5	461.6
72.5°	262.5	298.0	362.7	403.3	418.5
75°	210.5	251.1	315.8	358.9	369.0
77.5°	159.8	206.7	272.7	305.6	305.6
80°	114.1	163.6	224.5	239.7	242.2
82.5°	74.8	123.0	166.1	164.9	164.9
85°	43.1	79.9	98.9	96.4	96.4
87.5°	16.5	33.0	35.5	35.5	34.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)