

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: P843095

Luminaire Tested: **24CZ2-45HE-SQR-UNV-B40**

Issue Date: 1/5/2024



Test Information

Test Method: LM-79-08
Report Number: P843095
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P388488)
Test Lab: INNOVATION CENTER (G2)
Issue Date: 1/5/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-45HE-SQR-UNV-B40
Description: 2X4 4500 LUMEN CRUZE TROFFER WITH BIO UP LEDS AT 4000K CCT AND SQR LENS

Light Source: -
Ballast/Driver: -

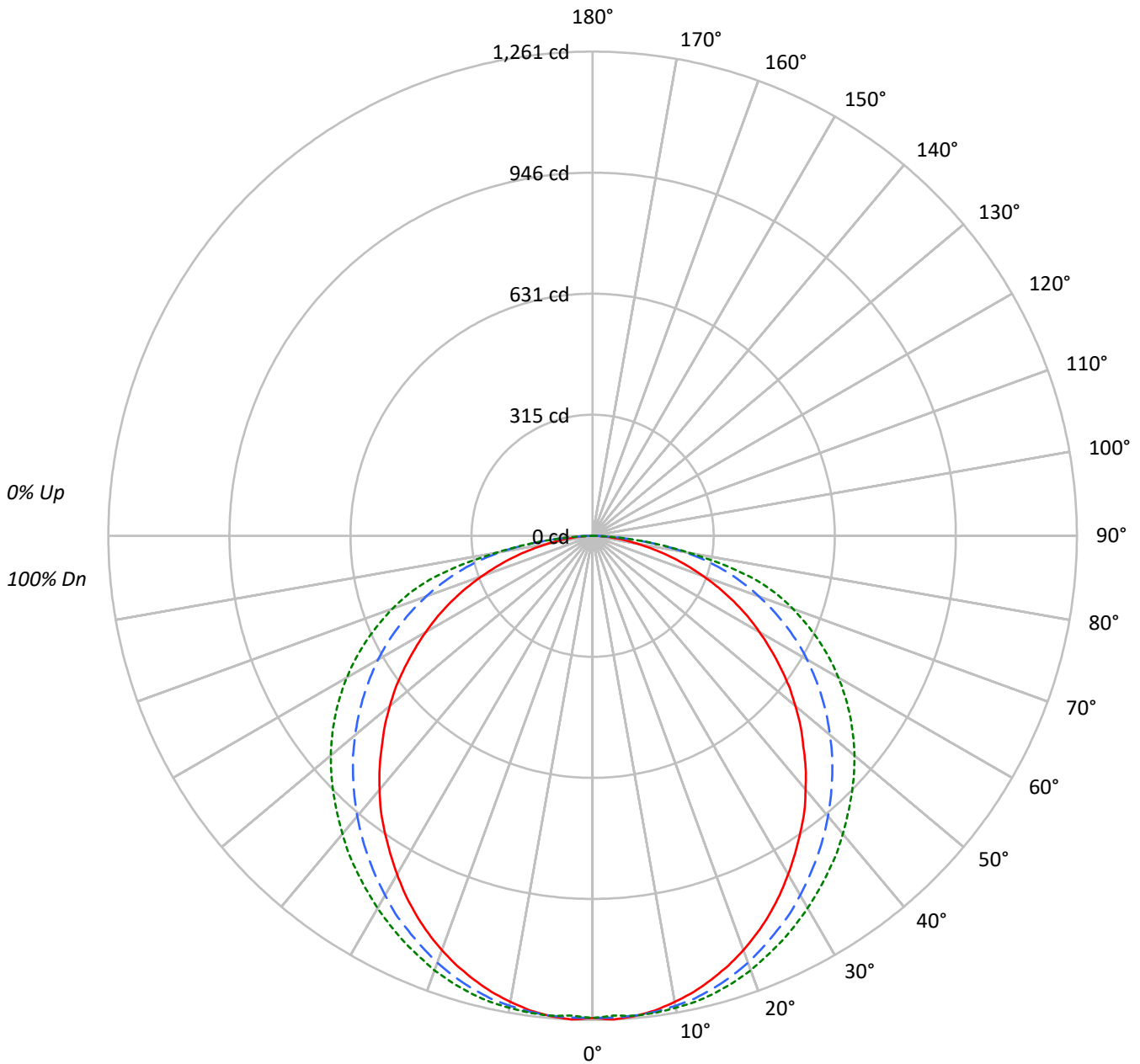
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3929.0 lumens
Efficiency: N/A
Efficacy: 119.1 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.33 / 1.41
Luminous Opening: Rectangular (W 1.92' x L: 3.98' x H: 0')
CIE Type: Direct

Input Watts (W): 33
Input Voltage (V): NR
Input Current (A_{in}): 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	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°	1772	1772	1772
5°	1779	1778	1778
10°	1766	1781	1789
15°	1748	1782	1801
20°	1725	1777	1808
25°	1695	1768	1814
30°	1660	1761	1825
35°	1625	1757	1842
40°	1590	1757	1867
45°	1548	1761	1904
50°	1513	1772	1954
55°	1469	1791	2014
60°	1417	1820	2087
65°	1356	1854	2175
70°	1258	1901	2286
75°	1139	1967	2392
80°	959	1972	2055
85°	735	1491	1491



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	119.2	3.0
10°-20°	343.0	8.7
20°-30°	521.0	13.3
30°-40°	633.7	16.1
40°-50°	674.7	17.2
50°-60°	642.6	16.4
60°-70°	537.4	13.7
70°-80°	358.3	9.1
80°-90°	99.1	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°	983.2	25.0
0°-40°	1616.9	41.2
0°-60°	2934.2	74.7
0°-90°	3929.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3929.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1256	1256	1256	1256	1256	
5°	1256	1248	1255	1255	1255	119
15°	1196	1199	1220	1229	1233	337
25°	1089	1103	1135	1155	1165	501
35°	943	970	1020	1054	1069	590
45°	776	817	882	932	954	600
55°	597	649	728	792	819	534
65°	406	466	555	624	651	401
75°	209	275	361	422	439	221
85°	45	84	92	91	92	55
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1255.8	1255.8	1255.8	1255.8	1255.8
2.5°	1261.1	1252.0	1255.8	1255.8	1250.8
5°	1255.8	1248.1	1254.7	1254.7	1254.7
7.5°	1246.9	1240.3	1250.8	1253.3	1253.3
10°	1232.6	1230.0	1243.0	1246.9	1248.1
12.5°	1217.0	1215.7	1233.9	1239.0	1243.0
15°	1196.1	1198.8	1219.6	1228.7	1232.6
17.5°	1174.2	1179.3	1202.7	1215.7	1219.6
20°	1148.3	1156.0	1183.3	1196.1	1204.1
22.5°	1119.8	1131.4	1159.9	1175.4	1184.5
25°	1088.6	1102.7	1135.3	1154.7	1165.1
27.5°	1054.8	1073.1	1110.7	1132.6	1143.0
30°	1018.4	1039.2	1080.8	1106.8	1119.8
32.5°	980.8	1005.4	1051.0	1079.5	1095.0
35°	943.2	970.5	1019.8	1053.5	1069.0
37.5°	905.6	932.8	987.4	1023.7	1043.2
40°	862.8	895.2	953.7	993.8	1013.4
42.5°	821.3	856.2	918.6	962.6	983.5
45°	775.8	817.4	882.2	931.6	953.7
47.5°	734.3	775.8	845.9	897.9	922.5
50°	689.0	733.0	807.0	864.1	890.1
52.5°	644.8	690.3	768.0	829.1	855.0
55°	596.9	648.7	727.9	791.5	818.6
57.5°	548.8	604.6	686.3	752.5	779.8
60°	502.1	559.1	644.8	711.0	739.5
62.5°	455.4	512.4	601.9	669.4	696.7
65°	406.0	465.7	555.2	624.0	651.4
67.5°	356.8	419.0	508.5	577.3	603.3
70°	304.9	371.1	460.7	528.1	554.1
72.5°	257.0	323.1	411.2	477.5	502.1
75°	208.9	275.0	360.7	421.7	438.6
77.5°	162.2	228.3	304.9	345.2	349.0
80°	118.0	180.4	242.6	254.3	252.9
82.5°	79.1	134.9	167.4	168.6	172.5
85°	45.4	84.3	92.1	90.9	92.1
87.5°	18.2	29.8	26.0	19.4	19.4
90°	0.0	0.0	0.0	0.0	0.0



Report Generated By 670246072 / DESKTOP-50001EG





— 0°-180° - - 45°-225° - - - - 90°-270°







(END OF REPORT)