

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: P388854

Luminaire Tested: **24CZ2-55HE-SQR-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: P388854
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: 24CZ2-55HE-SQR-UNV-L940-CD1-SDWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4453.6 lumens
Efficiency: N/A
Efficacy: 102.4 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

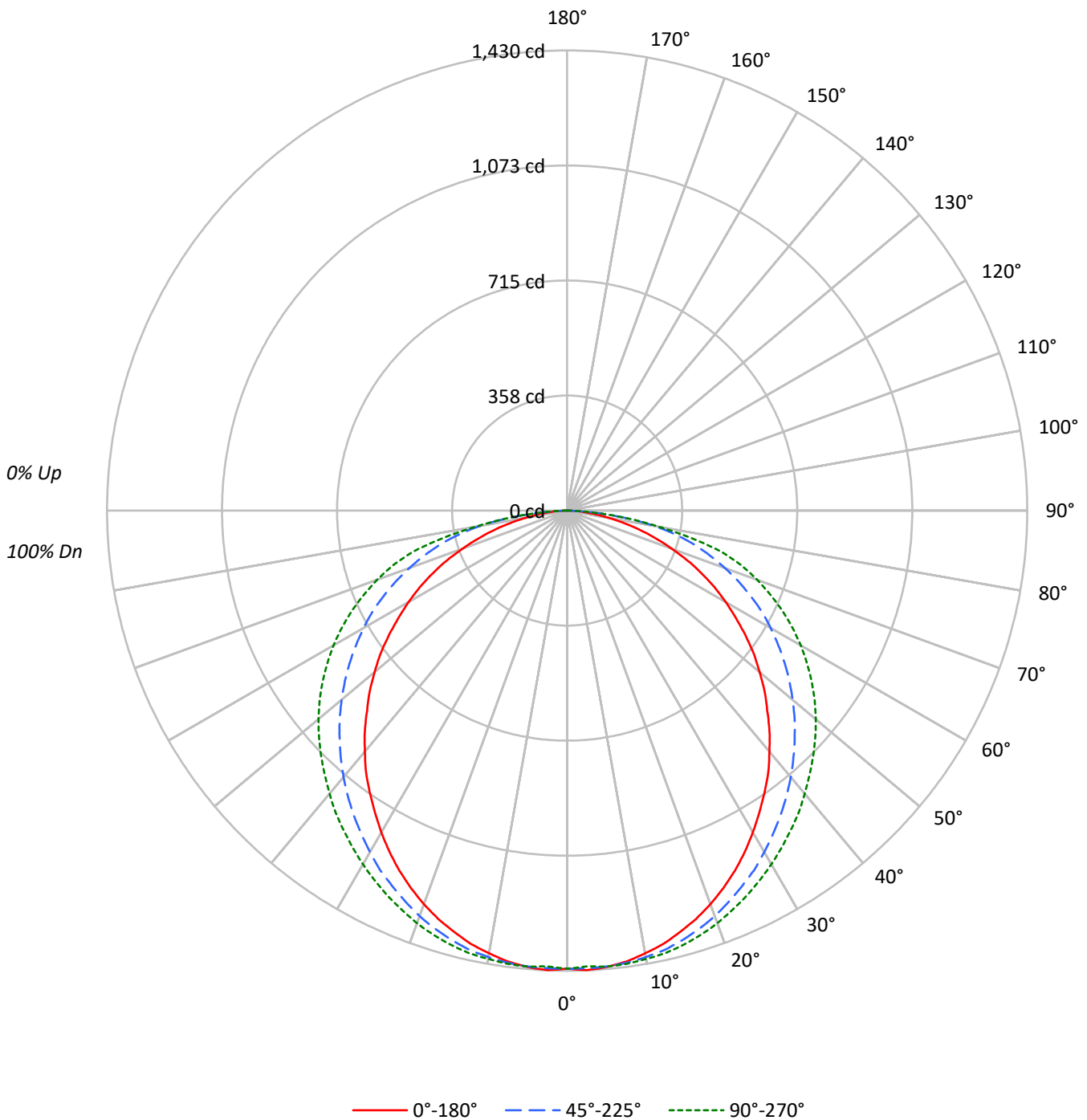
Input Watts (W): 43.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P388854

CATALOG NUMBER: 24CZ2-55HE-SQR-UNV-L940-CD1-SDWPD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P388854

CATALOG NUMBER: 24CZ2-55HE-SQR-UNV-L940-CD1-SDWPD1-U

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°	1915	1915	1915
5°	1923	1921	1921
10°	1909	1925	1933
15°	1889	1926	1946
20°	1864	1920	1954
25°	1832	1910	1961
30°	1794	1903	1972
35°	1756	1899	1990
40°	1718	1899	2017
45°	1673	1903	2057
50°	1635	1915	2112
55°	1587	1935	2177
60°	1531	1967	2256
65°	1465	2004	2351
70°	1360	2054	2471
75°	1231	2125	2584
80°	1037	2131	2222
85°	795	1612	1612



TEST NUMBER: P388854

CATALOG NUMBER: 24CZ2-55HE-SQR-UNV-L940-CD1-SDWPD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	135.1	3.0
10°-20°	388.8	8.7
20°-30°	590.5	13.3
30°-40°	718.3	16.1
40°-50°	764.8	17.2
50°-60°	728.4	16.4
60°-70°	609.2	13.7
70°-80°	406.1	9.1
80°-90°	112.4	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°	1114.5	25.0
0°-40°	1832.8	41.2
0°-60°	3325.9	74.7
0°-90°	4453.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4453.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1424	1424	1424	1424	1424	
5°	1424	1415	1422	1422	1422	135
15°	1356	1359	1382	1393	1397	382
25°	1234	1250	1287	1309	1321	568
35°	1069	1100	1156	1194	1212	669
45°	879	926	1000	1056	1081	680
55°	676	735	825	897	928	605
65°	460	528	629	707	738	455
75°	237	312	409	478	497	251
85°	52	96	104	103	104	62
90°	0	0	0	0	0	



TEST NUMBER: P388854

CATALOG NUMBER: 24CZ2-55HE-SQR-UNV-L940-CD1-SDWPD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1423.6	1423.6	1423.6	1423.6	1423.6
2.5°	1429.5	1419.2	1423.6	1423.6	1417.7
5°	1423.6	1414.8	1422.1	1422.1	1422.1
7.5°	1413.3	1405.9	1417.7	1420.6	1420.6
10°	1397.1	1394.2	1408.9	1413.3	1414.8
12.5°	1379.5	1378.0	1398.6	1404.5	1408.9
15°	1355.9	1358.9	1382.4	1392.7	1397.1
17.5°	1330.9	1336.8	1363.3	1378.0	1382.4
20°	1301.5	1310.3	1341.2	1355.9	1364.8
22.5°	1269.2	1282.4	1314.8	1332.4	1342.7
25°	1233.9	1250.1	1286.8	1308.9	1320.6
27.5°	1195.6	1216.2	1258.9	1283.9	1295.6
30°	1154.5	1178.0	1225.0	1254.5	1269.2
32.5°	1111.8	1139.8	1191.2	1223.6	1241.2
35°	1069.2	1100.0	1155.9	1194.2	1211.8
37.5°	1026.5	1057.4	1119.2	1160.3	1182.4
40°	978.0	1014.7	1080.9	1126.5	1148.6
42.5°	930.9	970.6	1041.2	1091.2	1114.8
45°	879.4	926.5	1000.0	1055.9	1080.9
47.5°	832.4	879.4	958.9	1017.7	1045.6
50°	780.9	830.9	914.7	979.5	1008.9
52.5°	730.9	782.4	870.6	939.7	969.2
55°	676.5	735.3	825.0	897.1	928.0
57.5°	622.1	685.3	778.0	853.0	883.9
60°	569.1	633.8	730.9	805.9	838.3
62.5°	516.2	580.9	682.4	758.9	789.7
65°	460.3	528.0	629.4	707.4	738.3
67.5°	404.4	475.0	576.5	654.4	683.9
70°	345.6	420.6	522.1	598.6	628.0
72.5°	291.2	366.2	466.2	541.2	569.1
75°	236.8	311.8	408.8	478.0	497.1
77.5°	183.8	258.8	345.6	391.2	395.6
80°	133.8	204.4	275.0	288.2	286.8
82.5°	89.7	152.9	189.7	191.2	195.6
85°	51.5	95.6	104.4	102.9	104.4
87.5°	20.6	33.8	29.4	22.1	22.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)