

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: P388879

Luminaire Tested: **24CZ2-55VHE-SQR-UNV-L940-CD1-SWPD1-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: P388879
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: 24CZ2-55VHE-SQR-UNV-L940-CD1-SWPD1-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: 4512.8 lumens
Efficiency: N/A
Efficacy: 125.0 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

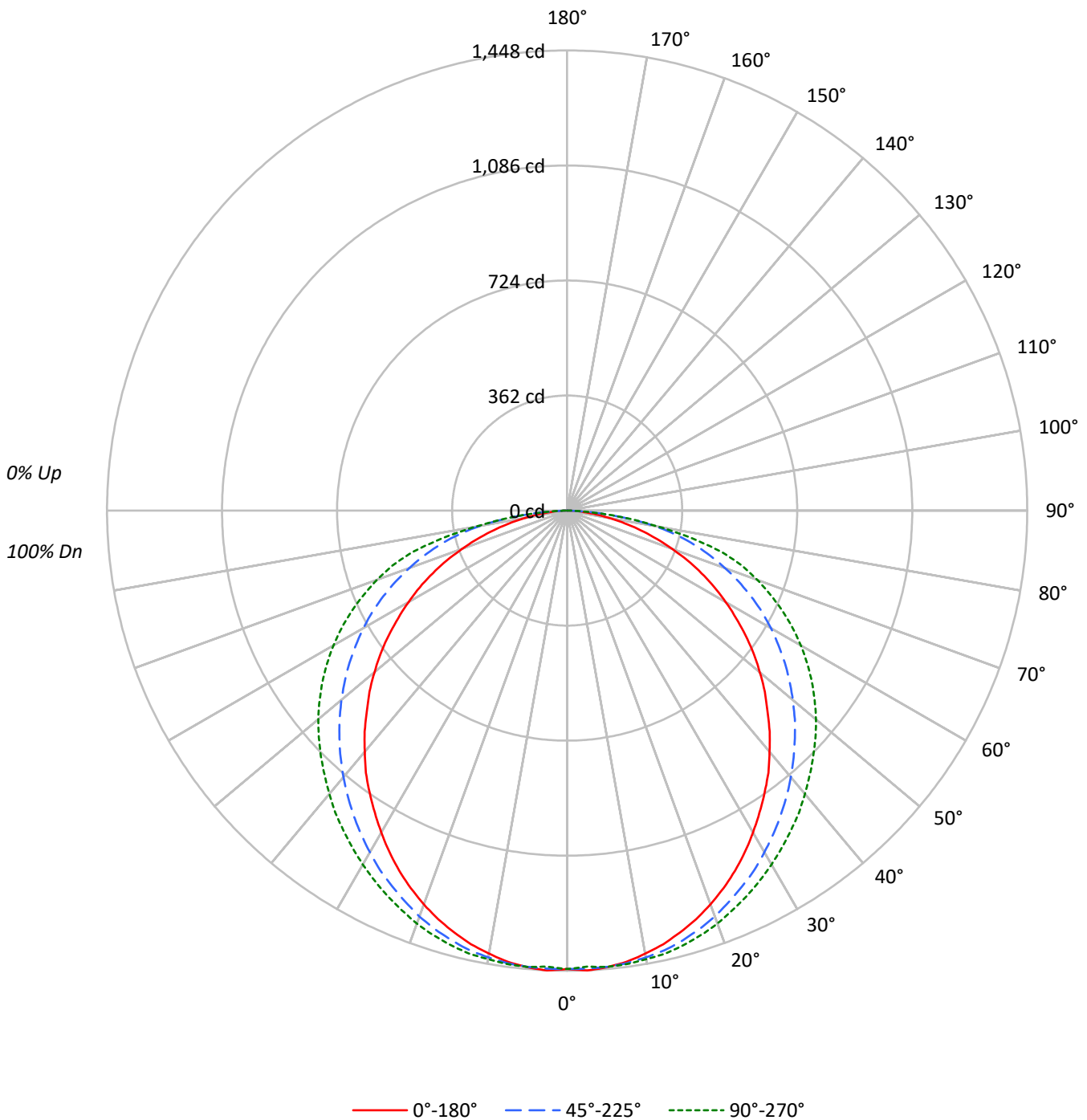
Input Watts (W): 36.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P388879

CATALOG NUMBER: 24CZ2-55VHE-SQR-UNV-L940-CD1-SWPD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P388879

CATALOG NUMBER: 24CZ2-55VHE-SQR-UNV-L940-CD1-SWPD1-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°	1941	1941	1941
5°	1948	1946	1946
10°	1934	1950	1959
15°	1914	1951	1972
20°	1888	1946	1980
25°	1856	1936	1987
30°	1817	1929	1998
35°	1780	1924	2017
40°	1741	1924	2044
45°	1696	1928	2084
50°	1656	1940	2140
55°	1608	1961	2206
60°	1552	1993	2286
65°	1485	2031	2382
70°	1378	2081	2503
75°	1247	2154	2619
80°	1051	2159	2252
85°	806	1633	1633



TEST NUMBER: P388879

CATALOG NUMBER: 24CZ2-55VHE-SQR-UNV-L940-CD1-SWPD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	136.9	3.0
10°-20°	394.0	8.7
20°-30°	598.4	13.3
30°-40°	727.9	16.1
40°-50°	774.9	17.2
50°-60°	738.1	16.4
60°-70°	617.2	13.7
70°-80°	411.5	9.1
80°-90°	113.9	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°	1129.3	25.0
0°-40°	1857.1	41.2
0°-60°	3370.1	74.7
0°-90°	4512.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4512.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1442	1442	1442	1442	1442	
5°	1442	1434	1441	1441	1441	137
15°	1374	1377	1401	1411	1416	387
25°	1250	1267	1304	1326	1338	576
35°	1083	1115	1171	1210	1228	678
45°	891	939	1013	1070	1095	689
55°	686	745	836	909	940	613
65°	466	535	638	717	748	461
75°	240	316	414	484	504	254
85°	52	97	106	104	106	63
90°	0	0	0	0	0	



TEST NUMBER: P388879

CATALOG NUMBER: 24CZ2-55VHE-SQR-UNV-L940-CD1-SWPD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1442.5	1442.5	1442.5	1442.5	1442.5
2.5°	1448.5	1438.0	1442.5	1442.5	1436.5
5°	1442.5	1433.6	1441.0	1441.0	1441.0
7.5°	1432.1	1424.6	1436.5	1439.5	1439.5
10°	1415.7	1412.7	1427.6	1432.1	1433.6
12.5°	1397.8	1396.3	1417.2	1423.1	1427.6
15°	1374.0	1376.9	1400.8	1411.2	1415.7
17.5°	1348.6	1354.6	1381.4	1396.3	1400.8
20°	1318.8	1327.8	1359.1	1374.0	1382.9
22.5°	1286.0	1299.5	1332.2	1350.1	1360.5
25°	1250.3	1266.7	1303.9	1326.3	1338.2
27.5°	1211.5	1232.4	1275.6	1300.9	1312.9
30°	1169.8	1193.6	1241.3	1271.1	1286.0
32.5°	1126.6	1154.9	1207.1	1239.8	1257.7
35°	1083.4	1114.7	1171.3	1210.0	1227.9
37.5°	1040.2	1071.5	1134.0	1175.8	1198.1
40°	991.0	1028.2	1095.3	1141.5	1163.8
42.5°	943.3	983.5	1055.1	1105.7	1129.6
45°	891.1	938.8	1013.3	1070.0	1095.3
47.5°	843.5	891.1	971.6	1031.2	1059.5
50°	791.3	842.0	926.9	992.5	1022.3
52.5°	740.6	792.8	882.2	952.2	982.0
55°	685.5	745.1	836.0	909.0	940.3
57.5°	630.4	694.4	788.3	864.3	895.6
60°	576.7	642.3	740.6	816.6	849.4
62.5°	523.1	588.6	691.5	768.9	800.2
65°	466.4	535.0	637.8	716.8	748.1
67.5°	409.8	481.3	584.2	663.1	692.9
70°	350.2	426.2	529.0	606.5	636.3
72.5°	295.1	371.1	472.4	548.4	576.7
75°	239.9	315.9	414.3	484.3	503.7
77.5°	186.3	262.3	350.2	396.4	400.9
80°	135.6	207.1	278.7	292.1	290.6
82.5°	90.9	155.0	192.2	193.7	198.2
85°	52.2	96.9	105.8	104.3	105.8
87.5°	20.9	34.3	29.8	22.4	22.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)