

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: P388831

Luminaire Tested: **24CZ2-55-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: P388831
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: 24CZ2-55-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: 4513.7 lumens
Efficiency: N/A
Efficacy: 89.4 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

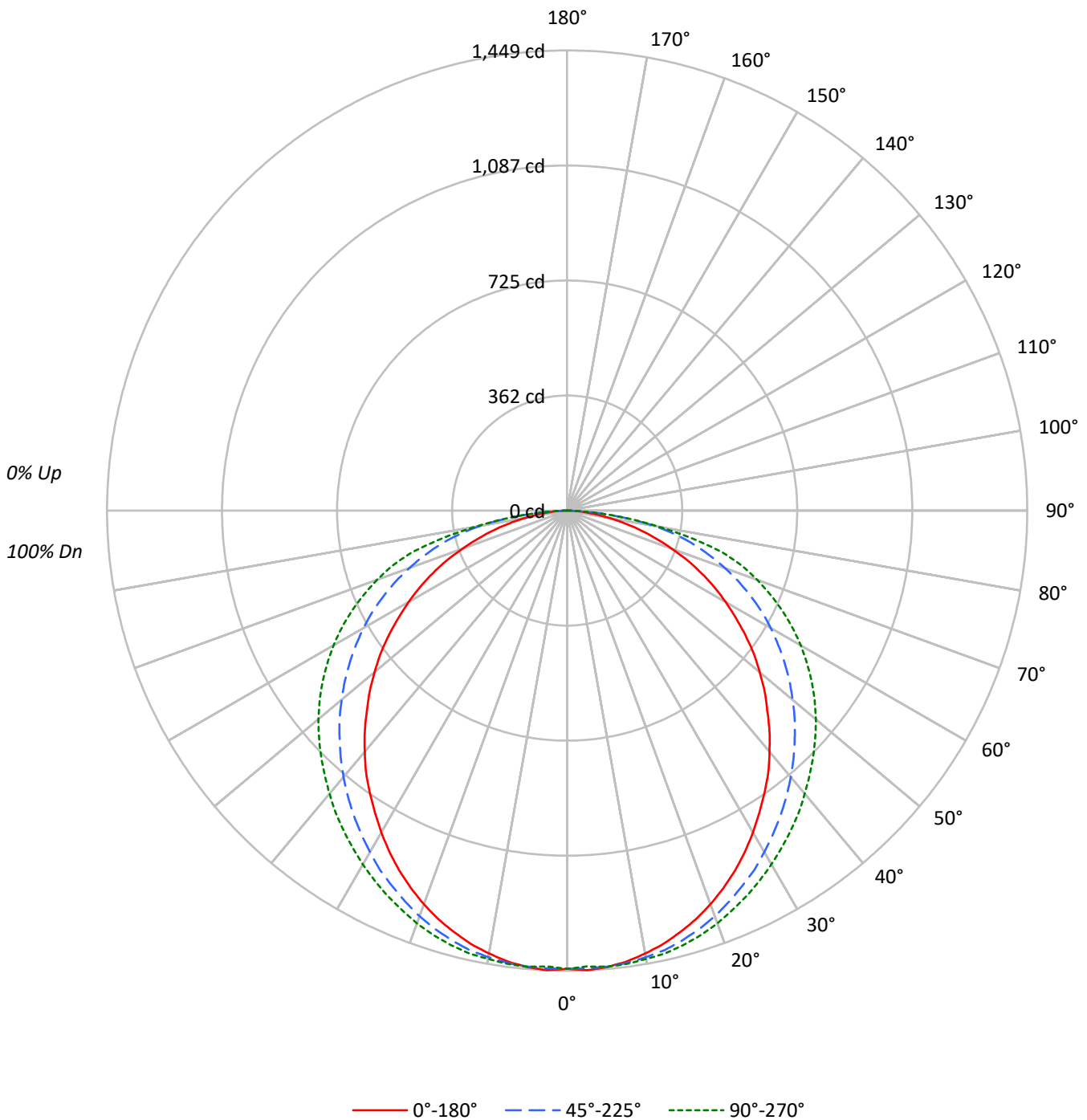
Input Watts (W): 50.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1941	1941	1941
5°	1949	1947	1947
10°	1935	1951	1959
15°	1914	1952	1972
20°	1889	1946	1981
25°	1856	1936	1987
30°	1818	1929	1998
35°	1780	1924	2017
40°	1741	1924	2045
45°	1696	1928	2085
50°	1657	1941	2140
55°	1608	1962	2206
60°	1552	1993	2286
65°	1485	2031	2382
70°	1378	2081	2504
75°	1248	2154	2619
80°	1051	2159	2252
85°	806	1633	1633



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	137.0	3.0
10°-20°	394.0	8.7
20°-30°	598.5	13.3
30°-40°	728.0	16.1
40°-50°	775.1	17.2
50°-60°	738.2	16.4
60°-70°	617.4	13.7
70°-80°	411.6	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°	1129.5	25.0
0°-40°	1857.5	41.2
0°-60°	3370.8	74.7
0°-90°	4513.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4513.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1443	1443	1443	1443	1443	
5°	1443	1434	1441	1441	1441	137
15°	1374	1377	1401	1412	1416	388
25°	1250	1267	1304	1326	1338	576
35°	1084	1115	1172	1210	1228	678
45°	891	939	1014	1070	1096	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	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1442.8	1442.8	1442.8	1442.8	1442.8
2.5°	1448.8	1438.3	1442.8	1442.8	1436.8
5°	1442.8	1433.9	1441.3	1441.3	1441.3
7.5°	1432.4	1424.9	1436.8	1439.8	1439.8
10°	1416.0	1413.0	1427.9	1432.4	1433.9
12.5°	1398.1	1396.6	1417.5	1423.4	1427.9
15°	1374.2	1377.2	1401.1	1411.5	1416.0
17.5°	1348.9	1354.9	1381.7	1396.6	1401.1
20°	1319.1	1328.0	1359.3	1374.2	1383.2
22.5°	1286.3	1299.7	1332.5	1350.4	1360.8
25°	1250.5	1266.9	1304.2	1326.5	1338.5
27.5°	1211.8	1232.6	1275.9	1301.2	1313.1
30°	1170.0	1193.9	1241.6	1271.4	1286.3
32.5°	1126.8	1155.1	1207.3	1240.1	1258.0
35°	1083.6	1114.9	1171.5	1210.3	1228.2
37.5°	1040.4	1071.7	1134.3	1176.0	1198.4
40°	991.2	1028.4	1095.5	1141.7	1164.1
42.5°	943.5	983.7	1055.3	1105.9	1129.8
45°	891.3	939.0	1013.5	1070.2	1095.5
47.5°	843.6	891.3	971.8	1031.4	1059.7
50°	791.5	842.1	927.1	992.7	1022.5
52.5°	740.8	792.9	882.4	952.4	982.2
55°	685.6	745.2	836.2	909.2	940.5
57.5°	630.5	694.6	788.5	864.5	895.8
60°	576.8	642.4	740.8	816.8	849.6
62.5°	523.2	588.7	691.6	769.1	800.4
65°	466.5	535.1	637.9	716.9	748.2
67.5°	409.9	481.4	584.3	663.3	693.1
70°	350.3	426.3	529.1	606.6	636.4
72.5°	295.1	371.1	472.5	548.5	576.8
75°	240.0	316.0	414.4	484.4	503.8
77.5°	186.3	262.3	350.3	396.5	400.9
80°	135.6	207.2	278.7	292.1	290.6
82.5°	90.9	155.0	192.3	193.8	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)