

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: P388878

Luminaire Tested: **24CZ2-55VHE-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: P388878
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-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: 4458.4 lumens
Efficiency: N/A
Efficacy: 123.5 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

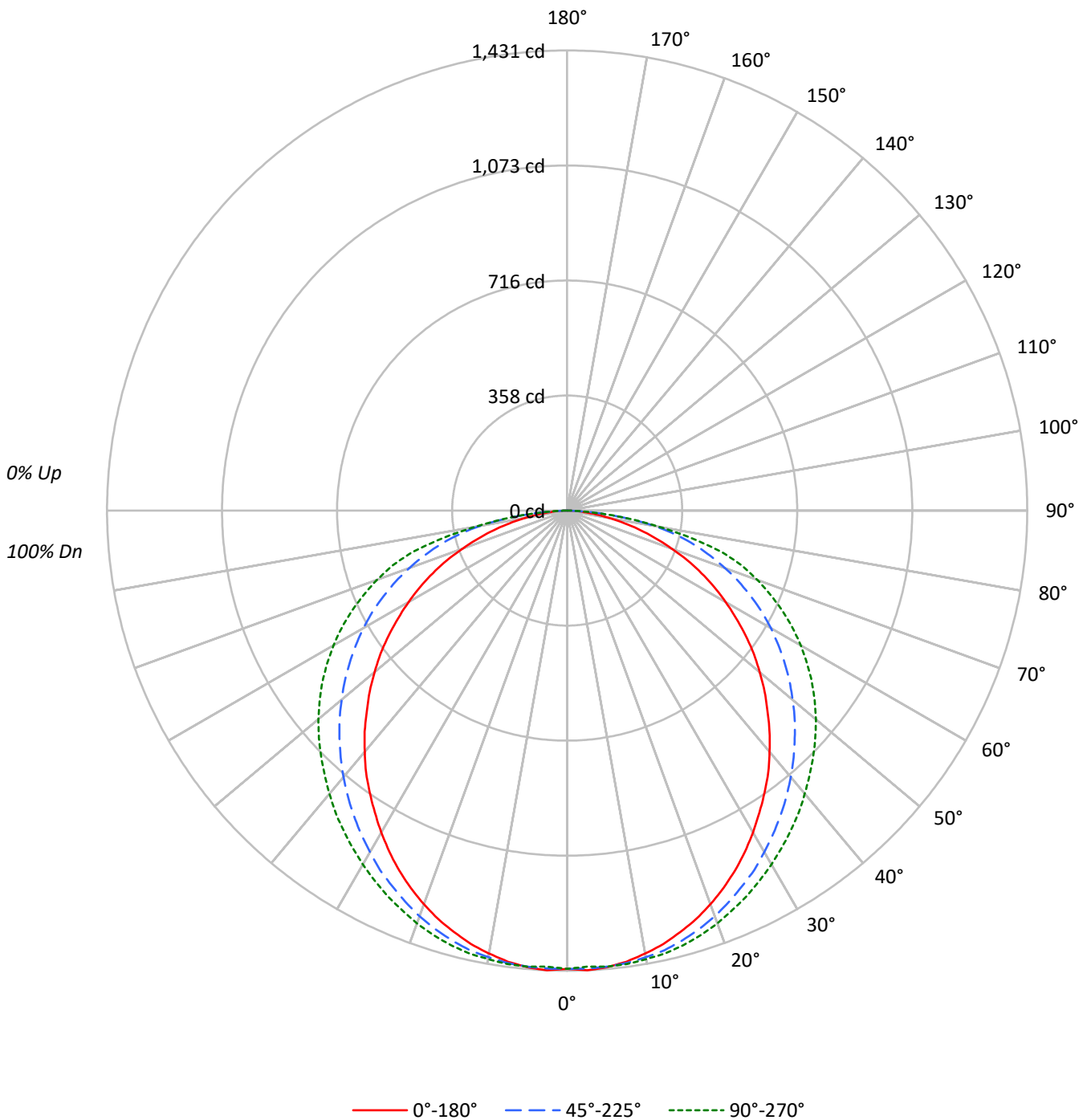
Input Watts (W): 36.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1917	1917	1917
5°	1925	1923	1923
10°	1911	1927	1935
15°	1891	1928	1948
20°	1866	1923	1956
25°	1834	1912	1963
30°	1796	1905	1974
35°	1758	1901	1993
40°	1720	1901	2020
45°	1675	1905	2059
50°	1636	1917	2114
55°	1589	1937	2179
60°	1533	1969	2258
65°	1467	2006	2353
70°	1361	2056	2473
75°	1232	2128	2587
80°	1038	2133	2225
85°	795	1613	1613



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	135.3	3.0
10°-20°	389.2	8.7
20°-30°	591.2	13.3
30°-40°	719.1	16.1
40°-50°	765.6	17.2
50°-60°	729.2	16.4
60°-70°	609.8	13.7
70°-80°	406.6	9.1
80°-90°	112.5	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°	1115.7	25.0
0°-40°	1834.7	41.2
0°-60°	3329.5	74.7
0°-90°	4458.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4458.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1425	1425	1425	1425	1425	
5°	1425	1416	1424	1424	1424	135
15°	1357	1360	1384	1394	1399	383
25°	1235	1251	1288	1310	1322	569
35°	1070	1101	1157	1196	1213	670
45°	880	928	1001	1057	1082	681
55°	677	736	826	898	929	605
65°	461	528	630	708	739	455
75°	237	312	409	478	498	251
85°	52	96	104	103	104	62
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1425.1	1425.1	1425.1	1425.1	1425.1
2.5°	1431.0	1420.7	1425.1	1425.1	1419.2
5°	1425.1	1416.3	1423.6	1423.6	1423.6
7.5°	1414.8	1407.5	1419.2	1422.2	1422.2
10°	1398.6	1395.7	1410.4	1414.8	1416.3
12.5°	1381.0	1379.5	1400.1	1406.0	1410.4
15°	1357.4	1360.3	1383.9	1394.2	1398.6
17.5°	1332.4	1338.3	1364.8	1379.5	1383.9
20°	1302.9	1311.8	1342.7	1357.4	1366.2
22.5°	1270.5	1283.8	1316.2	1333.8	1344.1
25°	1235.2	1251.4	1288.2	1310.3	1322.1
27.5°	1196.9	1217.5	1260.2	1285.3	1297.0
30°	1155.7	1179.3	1226.4	1255.8	1270.5
32.5°	1113.0	1141.0	1192.5	1224.9	1242.6
35°	1070.3	1101.2	1157.2	1195.5	1213.1
37.5°	1027.6	1058.5	1120.4	1161.6	1183.7
40°	979.0	1015.8	1082.1	1127.7	1149.8
42.5°	931.9	971.7	1042.3	1092.4	1116.0
45°	880.4	927.5	1001.1	1057.1	1082.1
47.5°	833.3	880.4	959.9	1018.8	1046.8
50°	781.8	831.8	915.7	980.5	1010.0
52.5°	731.7	783.2	871.6	940.8	970.2
55°	677.2	736.1	825.9	898.1	929.0
57.5°	622.8	686.1	778.8	853.9	884.8
60°	569.8	634.5	731.7	806.8	839.2
62.5°	516.8	581.5	683.1	759.7	790.6
65°	460.8	528.5	630.1	708.1	739.1
67.5°	404.9	475.5	577.1	655.1	684.6
70°	346.0	421.1	522.6	599.2	628.6
72.5°	291.5	366.6	466.7	541.8	569.8
75°	237.0	312.1	409.3	478.5	497.6
77.5°	184.0	259.1	346.0	391.6	396.0
80°	134.0	204.6	275.3	288.6	287.1
82.5°	89.8	153.1	189.9	191.4	195.8
85°	51.5	95.7	104.5	103.1	104.5
87.5°	20.6	33.9	29.4	22.1	22.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)