

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: P388851

Luminaire Tested: **24CZ2-55HE-SQR-UNV-L935-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: P388851  
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-L935-CD1-SDWPD1-U  
Description: 2x4 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND SQUARE LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4408.0 lumens  
Efficiency: N/A  
Efficacy: 101.3 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

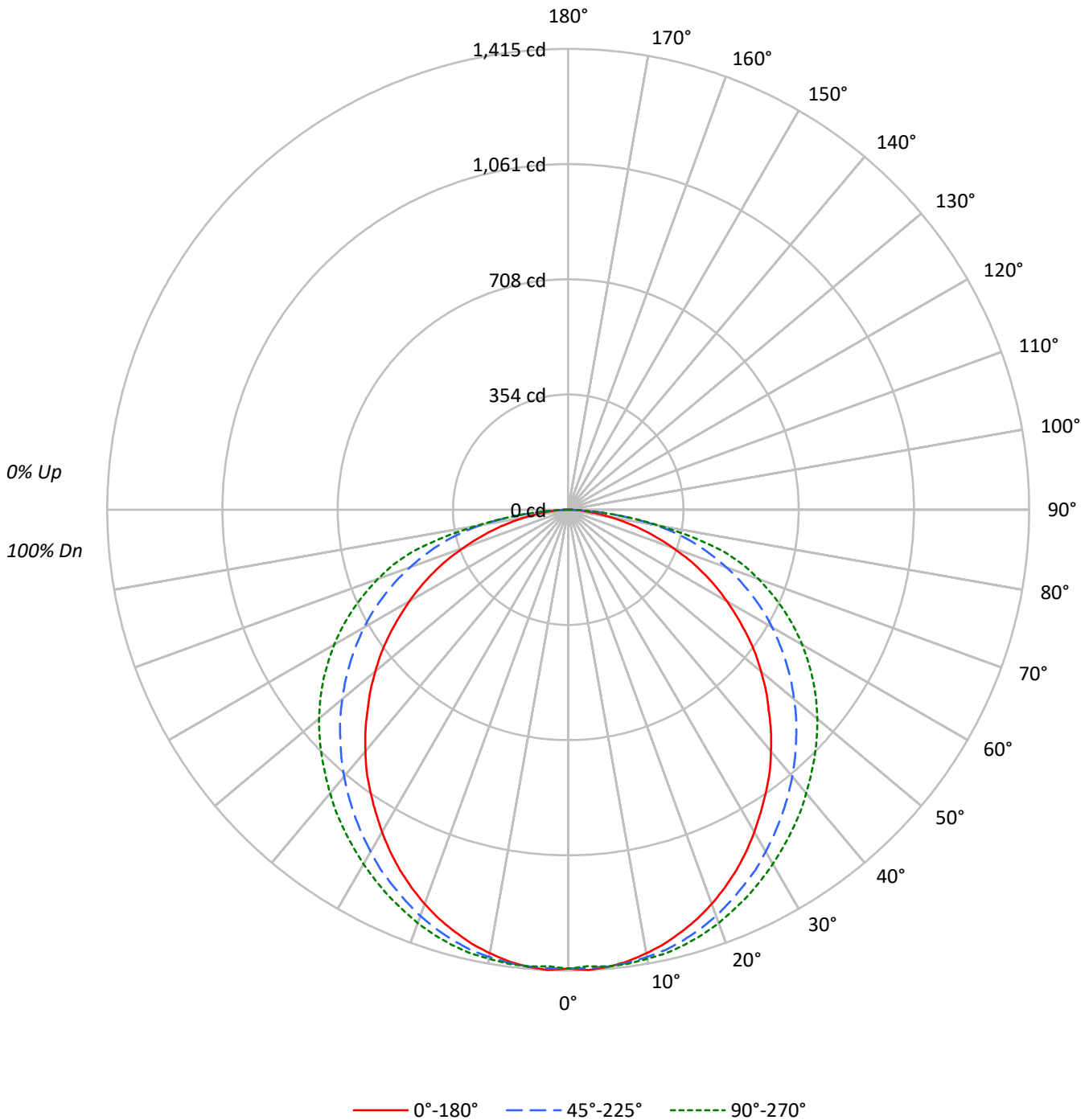
Input Watts (W): 43.5  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	1896	1896	1896
5°	1903	1901	1901
10°	1889	1905	1913
15°	1869	1906	1926
20°	1844	1901	1934
25°	1813	1891	1940
30°	1775	1884	1952
35°	1738	1879	1970
40°	1700	1879	1997
45°	1656	1883	2036
50°	1618	1895	2090
55°	1571	1916	2155
60°	1516	1947	2233
65°	1450	1983	2326
70°	1346	2033	2445
75°	1219	2104	2558
80°	1027	2109	2199
85°	786	1595	1595



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	133.7	3.0
10°-20°	384.8	8.7
20°-30°	584.5	13.3
30°-40°	711.0	16.1
40°-50°	756.9	17.2
50°-60°	720.9	16.4
60°-70°	602.9	13.7
70°-80°	402.0	9.1
80°-90°	111.2	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°	1103.1	25.0
0°-40°	1814.0	41.2
0°-60°	3291.9	74.7
0°-90°	4408.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4408.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1409	1409	1409	1409	1409	
5°	1409	1400	1408	1408	1408	134
15°	1342	1345	1368	1378	1383	378
25°	1221	1237	1274	1296	1307	562
35°	1058	1089	1144	1182	1199	662
45°	870	917	990	1045	1070	673
55°	670	728	817	888	918	599
65°	456	523	623	700	731	450
75°	234	309	405	473	492	248
85°	51	95	103	102	103	62
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1409.0	1409.0	1409.0	1409.0	1409.0
2.5°	1414.8	1404.6	1409.0	1409.0	1403.2
5°	1409.0	1400.3	1407.6	1407.6	1407.6
7.5°	1398.8	1391.5	1403.2	1406.1	1406.1
10°	1382.8	1379.9	1394.5	1398.8	1400.3
12.5°	1365.3	1363.9	1384.3	1390.1	1394.5
15°	1342.1	1345.0	1368.3	1378.4	1382.8
17.5°	1317.3	1323.1	1349.3	1363.9	1368.3
20°	1288.2	1296.9	1327.5	1342.1	1350.8
22.5°	1256.2	1269.3	1301.3	1318.8	1329.0
25°	1221.2	1237.3	1273.6	1295.5	1307.1
27.5°	1183.4	1203.8	1246.0	1270.7	1282.4
30°	1142.6	1165.9	1212.5	1241.6	1256.2
32.5°	1100.4	1128.1	1179.0	1211.1	1228.5
35°	1058.2	1088.8	1144.1	1181.9	1199.4
37.5°	1016.0	1046.6	1107.7	1148.5	1170.3
40°	968.0	1004.4	1069.9	1115.0	1136.8
42.5°	921.4	960.7	1030.6	1080.0	1103.3
45°	870.4	917.0	989.8	1045.1	1069.9
47.5°	823.9	870.4	949.0	1007.3	1034.9
50°	772.9	822.4	905.4	969.4	998.5
52.5°	723.4	774.4	861.7	930.1	959.2
55°	669.6	727.8	816.6	887.9	918.5
57.5°	615.7	678.3	770.0	844.2	874.8
60°	563.3	627.4	723.4	797.7	829.7
62.5°	510.9	575.0	675.4	751.1	781.7
65°	455.6	522.6	623.0	700.1	730.7
67.5°	400.3	470.2	570.6	647.7	676.8
70°	342.1	416.3	516.7	592.4	621.5
72.5°	288.2	362.4	461.4	535.7	563.3
75°	234.4	308.6	404.7	473.1	492.0
77.5°	181.9	256.2	342.1	387.2	391.6
80°	132.5	202.3	272.2	285.3	283.8
82.5°	88.8	151.4	187.8	189.2	193.6
85°	50.9	94.6	103.3	101.9	103.3
87.5°	20.4	33.5	29.1	21.8	21.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)