

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: P388857

Luminaire Tested: **24CZ2-55HE-SQR-UNV-L950-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: P388857  
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-L950-CD1-SDWPD1-U  
Description: 2x4 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND SQUARE LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4727.2 lumens  
Efficiency: N/A  
Efficacy: 108.7 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

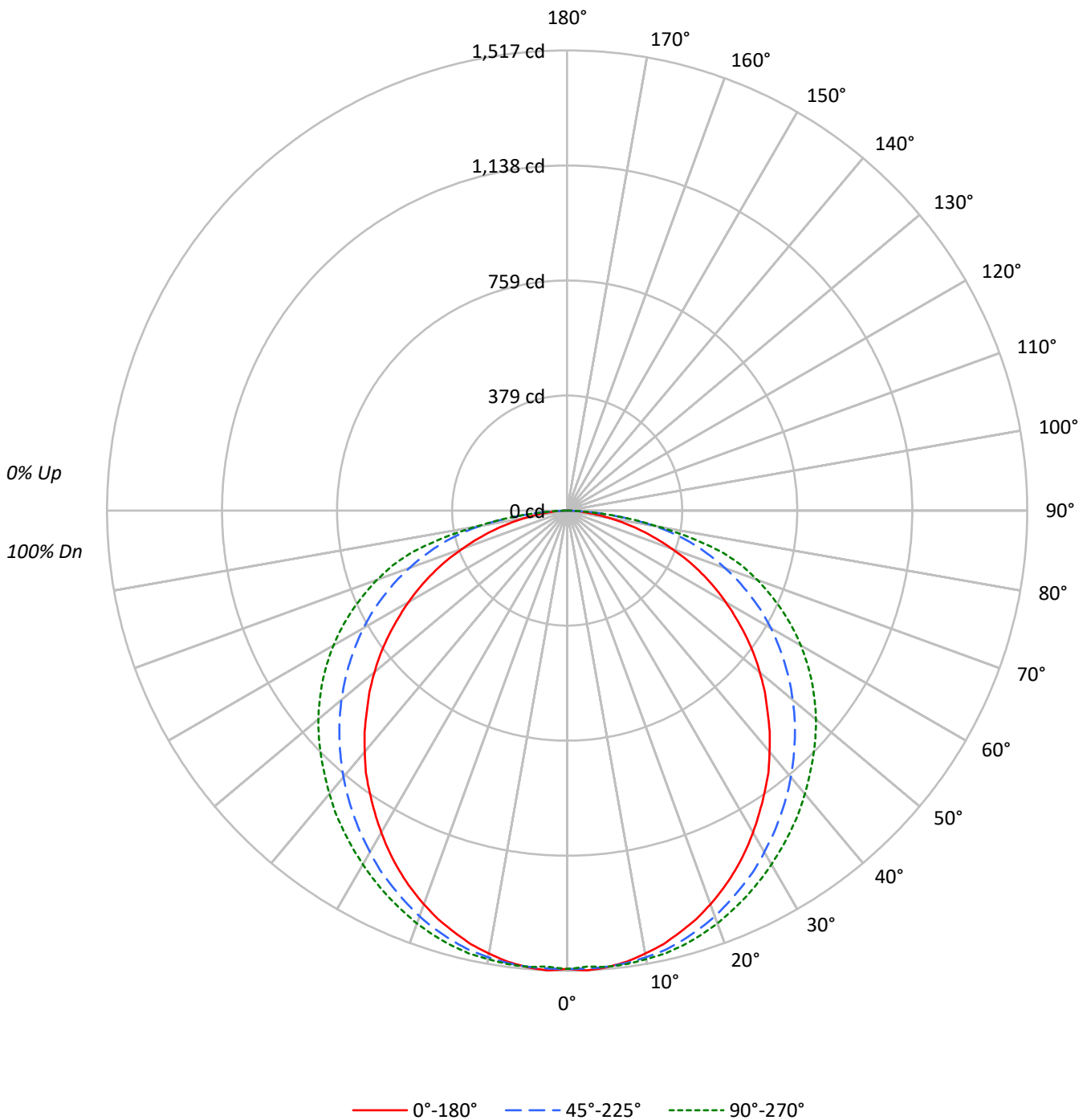
Input Watts (W): 43.5  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	2033	2033	2033
5°	2041	2039	2039
10°	2026	2043	2052
15°	2005	2044	2066
20°	1978	2038	2074
25°	1944	2028	2081
30°	1904	2020	2093
35°	1864	2015	2113
40°	1823	2015	2141
45°	1776	2020	2183
50°	1735	2032	2241
55°	1685	2054	2311
60°	1626	2088	2394
65°	1556	2127	2495
70°	1443	2180	2622
75°	1306	2256	2743
80°	1101	2262	2359
85°	843	1711	1711



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	143.4	3.0
10°-20°	412.7	8.7
20°-30°	626.8	13.3
30°-40°	762.4	16.1
40°-50°	811.8	17.2
50°-60°	773.2	16.4
60°-70°	646.6	13.7
70°-80°	431.1	9.1
80°-90°	119.3	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°	1182.9	25.0
0°-40°	1945.3	41.2
0°-60°	3530.3	74.7
0°-90°	4727.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4727.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1511	1511	1511	1511	1511	
5°	1511	1502	1510	1510	1510	143
15°	1439	1442	1467	1478	1483	406
25°	1310	1327	1366	1389	1402	603
35°	1135	1168	1227	1268	1286	710
45°	934	983	1062	1121	1147	722
55°	718	780	876	952	985	642
65°	489	560	668	751	784	483
75°	251	331	434	507	528	266
85°	55	102	111	109	111	66
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1511.0	1511.0	1511.0	1511.0	1511.0
2.5°	1517.3	1506.4	1511.0	1511.0	1504.8
5°	1511.0	1501.7	1509.5	1509.5	1509.5
7.5°	1500.1	1492.3	1504.8	1507.9	1507.9
10°	1482.9	1479.8	1495.4	1500.1	1501.7
12.5°	1464.2	1462.7	1484.5	1490.8	1495.4
15°	1439.2	1442.4	1467.3	1478.3	1482.9
17.5°	1412.7	1418.9	1447.0	1462.7	1467.3
20°	1381.5	1390.8	1423.6	1439.2	1448.6
22.5°	1347.1	1361.2	1395.5	1414.3	1425.2
25°	1309.7	1326.8	1365.9	1389.3	1401.8
27.5°	1269.1	1290.9	1336.2	1362.7	1375.2
30°	1225.4	1250.4	1300.3	1331.5	1347.1
32.5°	1180.1	1209.8	1264.4	1298.7	1317.5
35°	1134.8	1167.6	1226.9	1267.5	1286.3
37.5°	1089.6	1122.4	1187.9	1231.6	1255.0
40°	1038.1	1077.1	1147.3	1195.7	1219.1
42.5°	988.1	1030.3	1105.2	1158.3	1183.2
45°	933.5	983.4	1061.5	1120.8	1147.3
47.5°	883.5	933.5	1017.8	1080.2	1109.9
50°	828.9	882.0	970.9	1039.6	1070.8
52.5°	775.8	830.4	924.1	997.5	1028.7
55°	718.1	780.5	875.7	952.2	985.0
57.5°	660.3	727.4	825.8	905.4	938.2
60°	604.1	672.8	775.8	855.4	889.8
62.5°	547.9	616.6	724.3	805.5	838.3
65°	488.6	560.4	668.1	750.8	783.6
67.5°	429.3	504.2	611.9	694.6	725.9
70°	366.8	446.4	554.2	635.3	666.5
72.5°	309.1	388.7	494.8	574.4	604.1
75°	251.3	330.9	434.0	507.3	527.6
77.5°	195.1	274.7	366.8	415.2	419.9
80°	142.1	217.0	291.9	306.0	304.4
82.5°	95.2	162.3	201.4	202.9	207.6
85°	54.6	101.5	110.8	109.3	110.8
87.5°	21.9	35.9	31.2	23.4	23.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)