

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: P391566

Luminaire Tested: **24CZ2-65VHE-HRP-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: P391566  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-19)  
Test Lab: INNOVATIONS CENTER(G3)  
Issue Date: 2/28/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-65VHE-HRP-UNV-L950-CD1-SDWPD1-U  
Description: 2x4 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND HRP LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

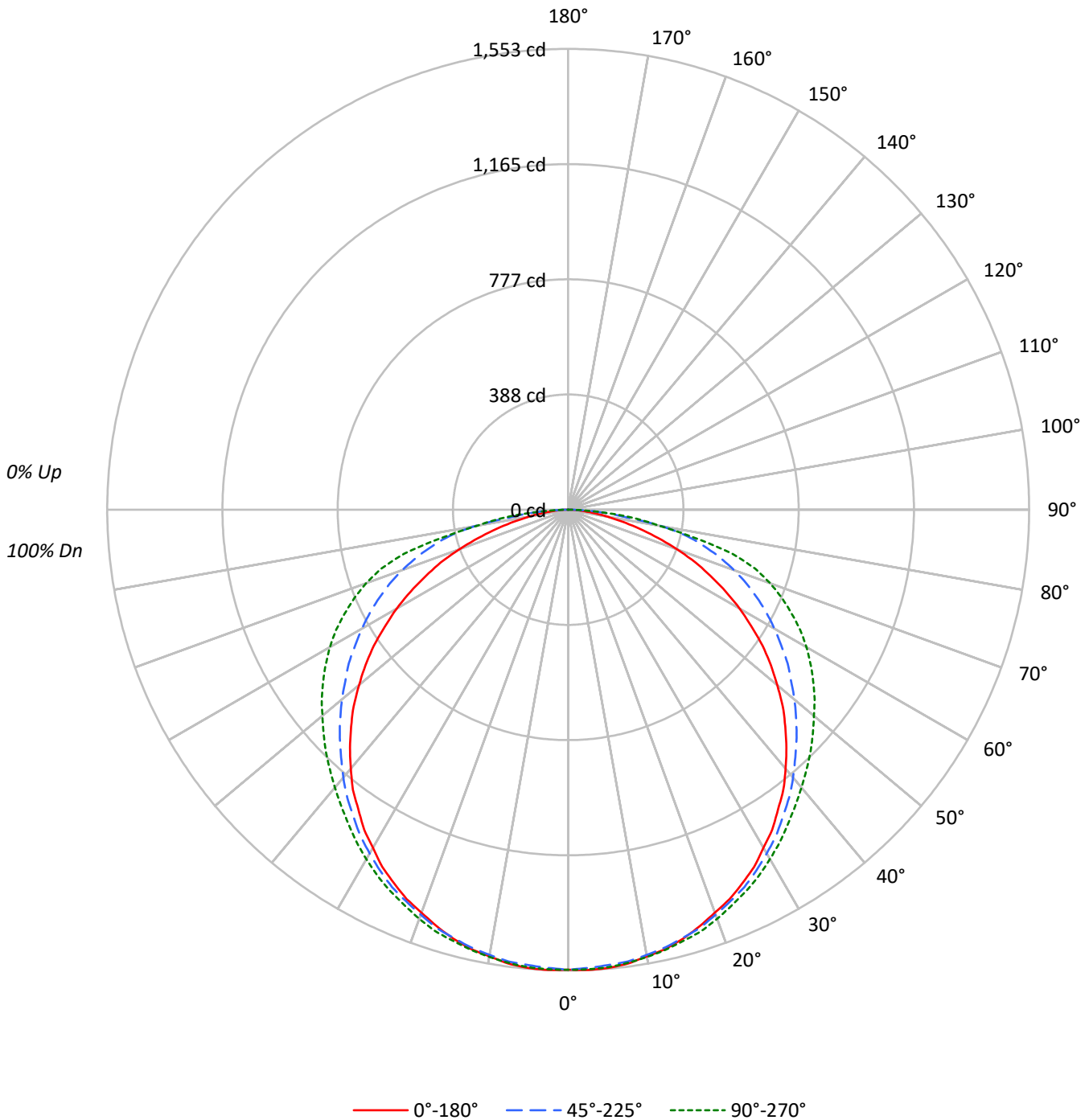
Lumens per Lamp: N/A  
Luminaire Lumens: 4929.8 lumens  
Efficiency: N/A  
Efficacy: 116.8 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 42.2  
Input Voltage (V): NR  
Input Current (Ain): NR  
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	88	86	84	82
2	97	89	81	75	95	87	80	74	83	77	72	80	75	71	77	73	69	67
3	88	77	68	62	86	76	67	61	72	66	60	70	64	59	67	62	58	56
4	81	68	59	52	78	67	58	51	64	57	51	62	55	50	59	54	49	47
5	74	60	51	44	72	59	51	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	45	38	51	44	38	50	43	37	48	42	37	35
7	63	49	40	34	61	48	40	34	47	39	33	45	38	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	41	34	29	40	34	29	27
9	55	41	33	27	53	40	32	27	39	32	27	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	2086	2086	2086
5°	2094	2081	2091
10°	2088	2081	2091
15°	2085	2081	2095
20°	2069	2080	2101
25°	2062	2084	2105
30°	2044	2078	2112
35°	2024	2072	2121
40°	2001	2070	2147
45°	1968	2070	2196
50°	1924	2083	2262
55°	1876	2117	2363
60°	1796	2158	2494
65°	1682	2234	2647
70°	1530	2338	2847
75°	1297	2466	2975
80°	1023	2482	2406
85°	755	1888	2113



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	147.1	3.0
10°-20°	423.2	8.6
20°-30°	647.2	13.1
30°-40°	791.2	16.0
40°-50°	843.3	17.1
50°-60°	806.3	16.4
60°-70°	683.0	13.9
70°-80°	459.0	9.3
80°-90°	129.5	2.6
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°	1217.5	24.7
0°-40°	2008.7	40.7
0°-60°	3658.3	74.2
0°-90°	4929.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4929.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1550	1550	1550	1550	1550	
5°	1550	1548	1540	1548	1548	147
15°	1496	1496	1494	1506	1504	422
25°	1389	1394	1404	1416	1418	640
35°	1232	1242	1262	1286	1291	772
45°	1034	1052	1088	1135	1154	798
55°	800	829	902	973	1007	712
65°	528	582	702	795	831	524
75°	249	340	474	555	572	267
85°	49	100	122	132	137	61
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1550.3	1550.3	1550.3	1550.3	1550.3
2.5°	1552.7	1552.7	1545.4	1550.3	1550.3
5°	1550.3	1547.8	1540.5	1547.8	1547.8
7.5°	1542.9	1540.5	1535.6	1542.9	1540.5
10°	1528.3	1528.3	1523.4	1530.7	1530.7
12.5°	1516.0	1513.6	1511.2	1520.9	1518.5
15°	1496.5	1496.5	1494.0	1506.3	1503.8
17.5°	1472.0	1474.5	1476.9	1486.7	1489.2
20°	1445.1	1450.0	1452.5	1467.1	1467.1
22.5°	1420.7	1423.1	1428.0	1442.7	1442.7
25°	1388.9	1393.8	1403.6	1415.8	1418.2
27.5°	1357.1	1359.6	1371.8	1388.9	1391.3
30°	1315.5	1322.9	1337.5	1357.1	1359.6
32.5°	1278.9	1286.2	1303.3	1322.9	1327.8
35°	1232.4	1242.2	1261.7	1286.2	1291.1
37.5°	1190.8	1198.2	1222.6	1249.5	1256.9
40°	1139.5	1154.2	1178.6	1210.4	1222.6
42.5°	1088.1	1102.8	1132.1	1173.7	1188.4
45°	1034.3	1051.5	1088.1	1134.6	1154.2
47.5°	980.5	1000.1	1041.7	1095.5	1117.5
50°	919.4	943.9	995.2	1056.3	1080.8
52.5°	860.7	890.1	946.3	1014.8	1046.6
55°	799.6	828.9	902.3	973.2	1007.4
57.5°	731.1	770.3	850.9	931.6	968.3
60°	667.6	704.2	802.0	890.1	926.7
62.5°	599.1	648.0	753.1	846.1	882.7
65°	528.2	582.0	701.8	794.7	831.4
67.5°	464.6	523.3	650.4	743.4	780.0
70°	388.8	462.2	594.2	687.1	723.8
72.5°	317.9	398.6	535.5	626.0	660.2
75°	249.4	339.9	474.4	555.1	572.2
77.5°	185.8	281.2	410.8	445.0	432.8
80°	132.0	225.0	320.3	303.2	310.5
82.5°	85.6	171.2	198.1	225.0	232.3
85°	48.9	100.3	122.3	132.0	136.9
87.5°	22.0	36.7	48.9	48.9	46.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)