

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: P391469

Luminaire Tested: **24CZ2-55VHE-HRP-UNV-L940-CD1-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: P391469
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: 24CZ2-55VHE-HRP-UNV-L940-CD1-U
Description: 2x4 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND HRP LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4038.8 lumens
Efficiency: N/A
Efficacy: 111.9 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

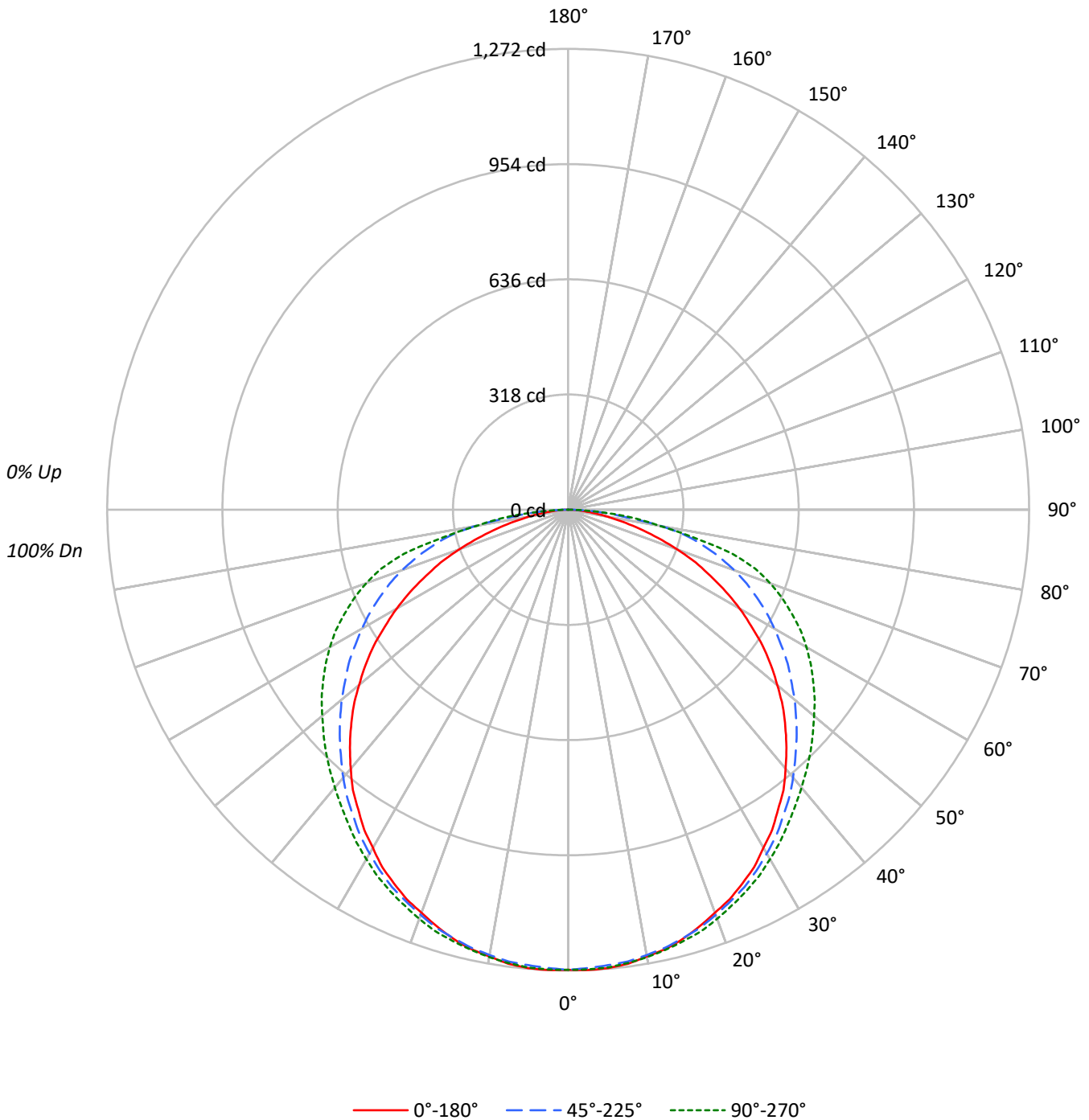
Input Watts (W): 36.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	1709	1709	1709
5°	1715	1705	1713
10°	1711	1705	1713
15°	1708	1705	1716
20°	1695	1704	1721
25°	1689	1707	1725
30°	1675	1702	1730
35°	1658	1698	1737
40°	1640	1696	1759
45°	1612	1696	1799
50°	1577	1707	1854
55°	1537	1734	1936
60°	1472	1768	2043
65°	1378	1830	2168
70°	1253	1915	2333
75°	1062	2020	2437
80°	838	2033	1971
85°	619	1547	1732



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	120.5	3.0
10°-20°	346.7	8.6
20°-30°	530.2	13.1
30°-40°	648.2	16.0
40°-50°	690.9	17.1
50°-60°	660.5	16.4
60°-70°	559.6	13.9
70°-80°	376.1	9.3
80°-90°	106.1	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°	997.5	24.7
0°-40°	1645.7	40.7
0°-60°	2997.1	74.2
0°-90°	4038.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4038.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1270	1270	1270	1270	1270	
5°	1270	1268	1262	1268	1268	121
15°	1226	1226	1224	1234	1232	346
25°	1138	1142	1150	1160	1162	524
35°	1010	1018	1034	1054	1058	633
45°	847	861	892	930	946	654
55°	655	679	739	797	825	583
65°	433	477	575	651	681	430
75°	204	278	389	455	469	219
85°	40	82	100	108	112	50
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1270.1	1270.1	1270.1	1270.1	1270.1
2.5°	1272.1	1272.1	1266.1	1270.1	1270.1
5°	1270.1	1268.1	1262.1	1268.1	1268.1
7.5°	1264.1	1262.1	1258.1	1264.1	1262.1
10°	1252.1	1252.1	1248.1	1254.1	1254.1
12.5°	1242.0	1240.0	1238.0	1246.0	1244.0
15°	1226.0	1226.0	1224.0	1234.0	1232.0
17.5°	1206.0	1208.0	1210.0	1218.0	1220.0
20°	1183.9	1188.0	1190.0	1202.0	1202.0
22.5°	1163.9	1165.9	1169.9	1181.9	1181.9
25°	1137.9	1141.9	1149.9	1159.9	1161.9
27.5°	1111.8	1113.8	1123.8	1137.9	1139.9
30°	1077.8	1083.8	1095.8	1111.8	1113.8
32.5°	1047.7	1053.7	1067.8	1083.8	1087.8
35°	1009.7	1017.7	1033.7	1053.7	1057.7
37.5°	975.6	981.6	1001.6	1023.7	1029.7
40°	933.5	945.6	965.6	991.6	1001.6
42.5°	891.5	903.5	927.5	961.6	973.6
45°	847.4	861.4	891.5	929.5	945.6
47.5°	803.3	819.3	853.4	897.5	915.5
50°	753.2	773.3	815.3	865.4	885.5
52.5°	705.2	729.2	775.3	831.4	857.4
55°	655.1	679.1	739.2	797.3	825.4
57.5°	599.0	631.0	697.1	763.3	793.3
60°	546.9	576.9	657.1	729.2	759.2
62.5°	490.8	530.9	617.0	693.1	723.2
65°	432.7	476.8	574.9	651.1	681.1
67.5°	380.6	428.7	532.9	609.0	639.1
70°	318.5	378.6	486.8	562.9	593.0
72.5°	260.4	326.5	438.7	512.8	540.9
75°	204.3	278.5	388.6	454.7	468.8
77.5°	152.3	230.4	336.6	364.6	354.6
80°	108.2	184.3	262.4	248.4	254.4
82.5°	70.1	140.2	162.3	184.3	190.3
85°	40.1	82.1	100.2	108.2	112.2
87.5°	18.0	30.0	40.1	40.1	38.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)