

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: P275989

Luminaire Tested: **24CZ2-50HE-UNV-L93050-W2A1-U-4000K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P275989
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-5)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-50HE-UNV-L93050-W2A1-U-4000K
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER
WITH RIBBED LENS
Light Source: (336) 90 CRI LEDS TUNED TO 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4364.7 lumens
Efficiency: N/A
Efficacy: 119.1 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.27 / 1.37
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

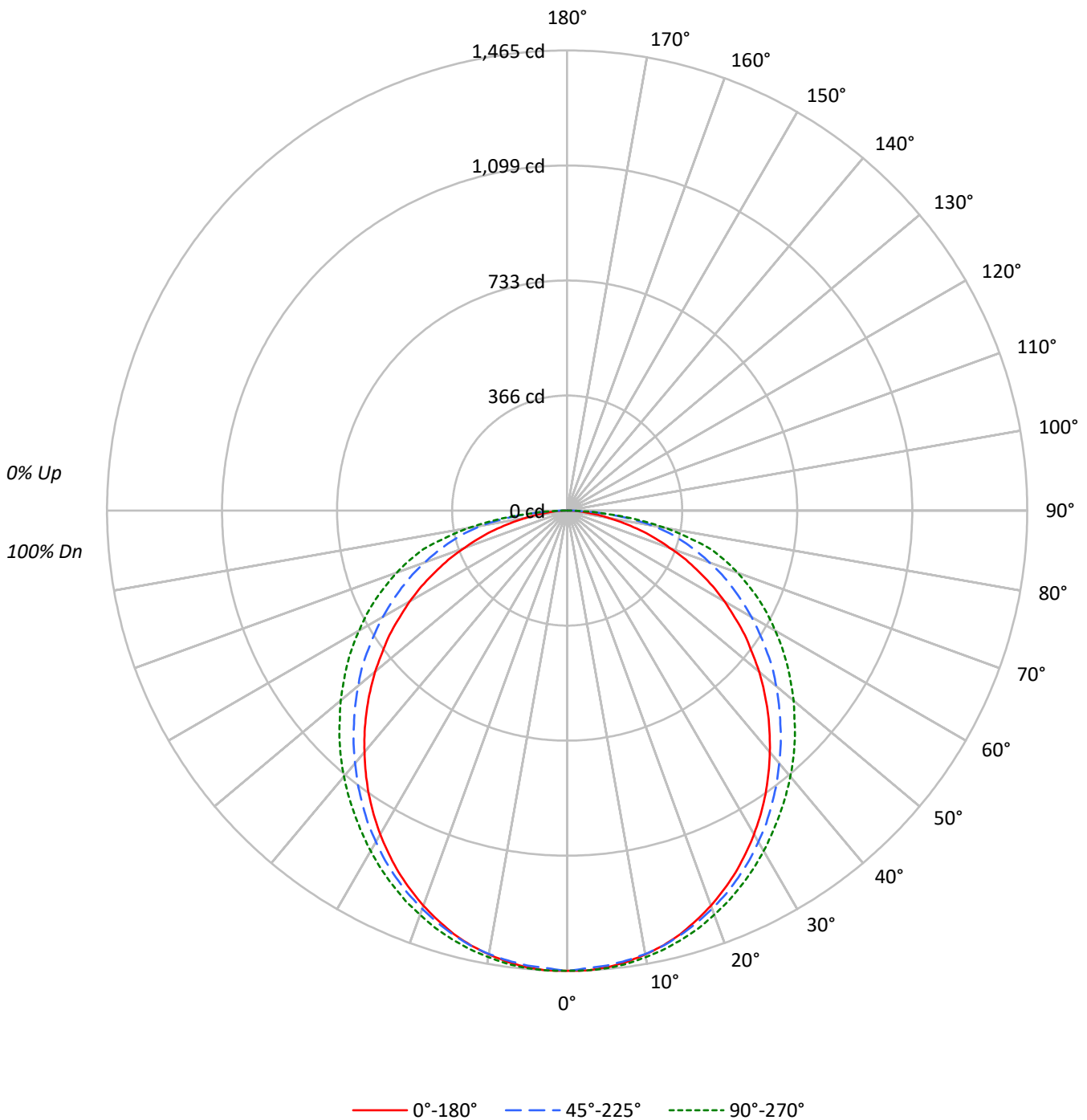
Input Watts (W): 36.640512
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P275989

CATALOG NUMBER: 24CZ2-50HE-UNV-L93050-W2A1-U-4000K

Luminous Intensity Polar Plot





TEST NUMBER: P275989

CATALOG NUMBER: 24CZ2-50HE-UNV-L93050-W2A1-U-4000K

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	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	58	56
4	81	69	59	52	79	67	59	52	65	57	51	62	56	51	60	55	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	39	50	44	38	49	43	38	36
7	64	50	41	35	62	49	40	34	47	40	34	46	39	34	45	38	34	32
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28
9	55	42	33	28	54	41	33	28	40	33	27	39	32	27	38	32	27	25
10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1972	1972	1972
5°	1971	1964	1975
10°	1960	1958	1972
15°	1944	1948	1968
20°	1917	1931	1961
25°	1886	1914	1953
30°	1849	1892	1944
35°	1809	1869	1938
40°	1763	1845	1942
45°	1719	1827	1951
50°	1671	1817	1970
55°	1620	1814	2006
60°	1556	1823	2058
65°	1475	1850	2147
70°	1370	1897	2269
75°	1250	1992	2461
80°	1027	2145	2461
85°	787	1979	2113



TEST NUMBER: P275989

CATALOG NUMBER: 24CZ2-50HE-UNV-L93050-W2A1-U-4000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	138.6	3.2
10°-20°	395.7	9.1
20°-30°	595.4	13.6
30°-40°	713.6	16.3
40°-50°	743.6	17.0
50°-60°	691.8	15.9
60°-70°	569.8	13.1
70°-80°	388.1	8.9
80°-90°	128.1	2.9
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°	1129.7	25.9
0°-40°	1843.3	42.2
0°-60°	3278.7	75.1
0°-90°	4364.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4364.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1465	1465	1465	1465	1465	
5°	1460	1460	1454	1461	1462	139
15°	1396	1397	1398	1412	1413	393
25°	1270	1276	1289	1311	1315	585
35°	1101	1114	1138	1168	1180	688
45°	903	922	960	1008	1026	697
55°	690	714	774	835	855	615
65°	463	503	581	650	674	460
75°	240	294	383	452	473	253
85°	51	99	128	137	137	63
90°	0	0	0	0	0	



TEST NUMBER: P275989

CATALOG NUMBER: 24CZ2-50HE-UNV-L93050-W2A1-U-4000K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1465.4	1465.4	1465.4	1465.4	1465.4
2.5°	1465.4	1465.4	1458.2	1465.4	1465.4
5°	1459.6	1459.6	1453.8	1461.1	1462.5
7.5°	1449.4	1450.9	1445.0	1453.8	1455.2
10°	1434.8	1436.3	1433.4	1442.1	1443.6
12.5°	1417.4	1418.8	1418.8	1429.0	1430.5
15°	1395.5	1397.0	1398.4	1411.5	1413.0
17.5°	1367.8	1372.2	1375.1	1391.1	1394.1
20°	1338.7	1343.1	1348.9	1366.4	1369.3
22.5°	1305.2	1311.0	1321.2	1340.2	1344.5
25°	1270.2	1276.1	1289.2	1311.0	1315.4
27.5°	1230.9	1239.7	1255.7	1279.0	1284.8
30°	1190.1	1198.9	1217.8	1242.6	1251.3
32.5°	1146.4	1158.1	1179.9	1207.6	1216.3
35°	1101.3	1114.4	1137.7	1168.3	1179.9
37.5°	1053.2	1067.8	1095.4	1128.9	1143.5
40°	1003.7	1021.1	1050.3	1089.6	1105.6
42.5°	954.1	970.2	1006.6	1048.8	1066.3
45°	903.2	922.1	960.0	1008.0	1025.5
47.5°	850.7	869.6	914.8	965.8	981.8
50°	798.3	817.2	868.2	922.1	941.0
52.5°	741.5	766.2	824.5	878.4	897.3
55°	690.5	713.8	773.5	834.7	855.1
57.5°	632.2	659.9	725.4	789.5	811.4
60°	578.3	607.4	677.4	742.9	764.8
62.5°	523.0	555.0	629.3	696.3	721.1
65°	463.2	502.6	581.2	649.7	674.5
67.5°	409.3	450.1	533.2	603.1	624.9
70°	348.2	397.7	482.2	552.1	576.9
72.5°	295.7	345.2	434.1	502.6	527.3
75°	240.4	294.3	383.1	451.6	473.4
77.5°	185.0	244.7	333.6	386.0	393.3
80°	132.6	195.2	276.8	307.4	317.6
82.5°	93.2	150.0	203.9	224.3	230.2
85°	51.0	99.1	128.2	136.9	136.9
87.5°	21.9	42.2	51.0	52.4	53.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)