

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: P276235

Luminaire Tested: **24CZ2-60HE-UNV-L92765-W2A1-U-4500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P276235
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: 24CZ2-60HE-UNV-L92765-W2A1-U-4500K
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER WITH RIBBED LENS
Light Source: (336) 90 CRI LEDS TUNED TO 4500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5169.9 lumens
Efficiency: N/A
Efficacy: 114.6 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

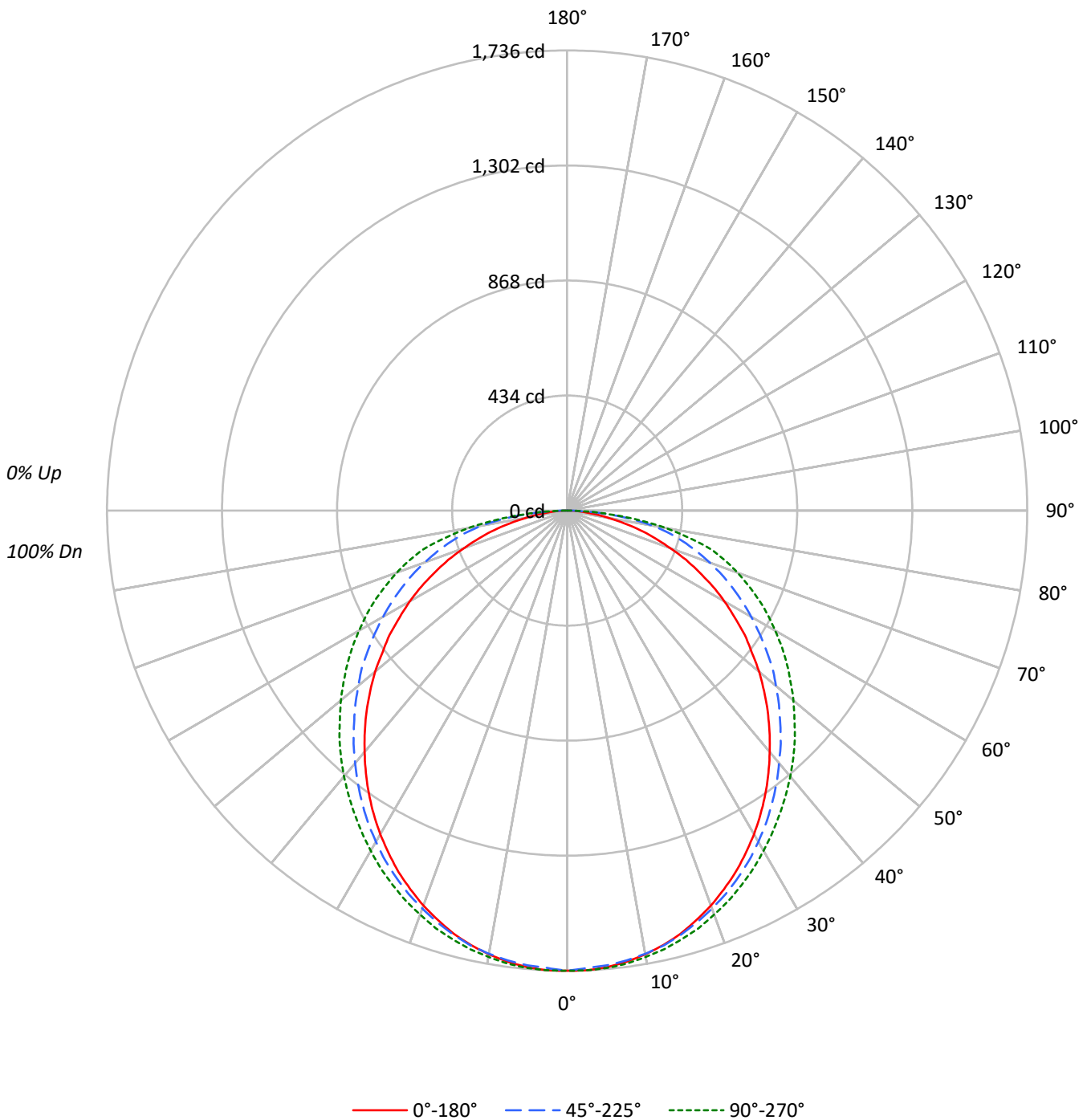
Input Watts (W): 45.105
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P276235

CATALOG NUMBER: 24CZ2-60HE-UNV-L92765-W2A1-U-4500K

Luminous Intensity Polar Plot





TEST NUMBER: P276235

CATALOG NUMBER: 24CZ2-60HE-UNV-L92765-W2A1-U-4500K

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	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					100			
1	108	103	98	94	105	100	96	92	96	93	89	92	89	87	89	86	84	82					82			
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67					67			
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	58	56					56			
4	81	69	59	52	79	67	59	52	65	57	51	62	56	51	60	55	50	48					48			
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41					41			
6	69	55	46	39	67	54	45	39	52	44	39	50	44	38	49	43	38	36					36			
7	64	50	41	35	62	49	40	34	47	40	34	46	39	34	45	38	34	32					32			
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28					28			
9	55	42	33	28	54	41	33	28	40	33	27	39	32	27	38	32	27	25					25			
10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23					23			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2336	2336	2336
5°	2335	2326	2340
10°	2322	2320	2336
15°	2303	2307	2331
20°	2270	2288	2322
25°	2234	2267	2313
30°	2190	2241	2303
35°	2143	2213	2296
40°	2088	2185	2300
45°	2036	2164	2311
50°	1979	2153	2333
55°	1918	2149	2376
60°	1843	2159	2437
65°	1747	2192	2543
70°	1622	2247	2688
75°	1480	2359	2915
80°	1216	2540	2914
85°	932	2343	2504



TEST NUMBER: P276235

CATALOG NUMBER: 24CZ2-60HE-UNV-L92765-W2A1-U-4500K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	164.2	3.2
10°-20°	468.7	9.1
20°-30°	705.3	13.6
30°-40°	845.2	16.3
40°-50°	880.8	17.0
50°-60°	819.5	15.9
60°-70°	674.9	13.1
70°-80°	459.7	8.9
80°-90°	151.7	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°	1338.1	25.9
0°-40°	2183.3	42.2
0°-60°	3883.6	75.1
0°-90°	5169.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5169.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1736	1736	1736	1736	1736	
5°	1729	1729	1722	1731	1732	164
15°	1653	1655	1656	1672	1674	466
25°	1505	1512	1527	1553	1558	693
35°	1304	1320	1348	1384	1398	815
45°	1070	1092	1137	1194	1215	825
55°	818	846	916	989	1013	729
65°	549	595	688	770	799	545
75°	285	348	454	535	561	300
85°	60	117	152	162	162	75
90°	0	0	0	0	0	



TEST NUMBER: P276235

CATALOG NUMBER: 24CZ2-60HE-UNV-L92765-W2A1-U-4500K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1735.8	1735.8	1735.8	1735.8	1735.8
2.5°	1735.8	1735.8	1727.1	1735.8	1735.8
5°	1728.9	1728.9	1722.0	1730.6	1732.3
7.5°	1716.8	1718.5	1711.6	1722.0	1723.7
10°	1699.5	1701.3	1697.8	1708.2	1709.9
12.5°	1678.8	1680.6	1680.6	1692.6	1694.4
15°	1653.0	1654.7	1656.4	1671.9	1673.7
17.5°	1620.2	1625.3	1628.8	1647.8	1651.2
20°	1585.7	1590.8	1597.7	1618.4	1621.9
22.5°	1546.0	1552.9	1565.0	1587.4	1592.6
25°	1504.6	1511.5	1527.0	1552.9	1558.1
27.5°	1458.0	1468.3	1487.3	1514.9	1521.8
30°	1409.7	1420.0	1442.5	1471.8	1482.1
32.5°	1357.9	1371.7	1397.6	1430.4	1440.7
35°	1304.4	1319.9	1347.6	1383.8	1397.6
37.5°	1247.5	1264.7	1297.5	1337.2	1354.5
40°	1188.8	1209.5	1244.0	1290.6	1309.6
42.5°	1130.2	1149.1	1192.3	1242.3	1263.0
45°	1069.8	1092.2	1137.1	1194.0	1214.7
47.5°	1007.6	1030.1	1083.6	1144.0	1162.9
50°	945.5	968.0	1028.4	1092.2	1114.6
52.5°	878.2	907.6	976.6	1040.4	1062.9
55°	817.8	845.5	916.2	988.7	1012.8
57.5°	748.8	781.6	859.3	935.2	961.1
60°	685.0	719.5	802.3	880.0	905.8
62.5°	619.4	657.4	745.4	824.8	854.1
65°	548.7	595.3	688.4	769.5	798.9
67.5°	484.8	533.2	631.5	714.3	740.2
70°	412.4	471.0	571.1	653.9	683.3
72.5°	350.3	408.9	514.2	595.3	624.6
75°	284.7	348.5	453.8	534.9	560.8
77.5°	219.1	289.9	395.1	457.2	465.9
80°	157.0	231.2	327.8	364.1	376.1
82.5°	110.4	177.7	241.6	265.7	272.6
85°	60.4	117.3	151.8	162.2	162.2
87.5°	25.9	50.0	60.4	62.1	63.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)