

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: P276497

Luminaire Tested: **24CZ2-45HE-S-UNV-L82765-W2A1-U-6500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P276497
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-1)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-45HE-S-UNV-L82765-W2A1-U-6500K
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER
WITH SMOOTH LENS
Light Source: (336) 80 CRI LEDS TUNED TO 6500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4659.8 lumens
Efficiency: N/A
Efficacy: 141.9 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

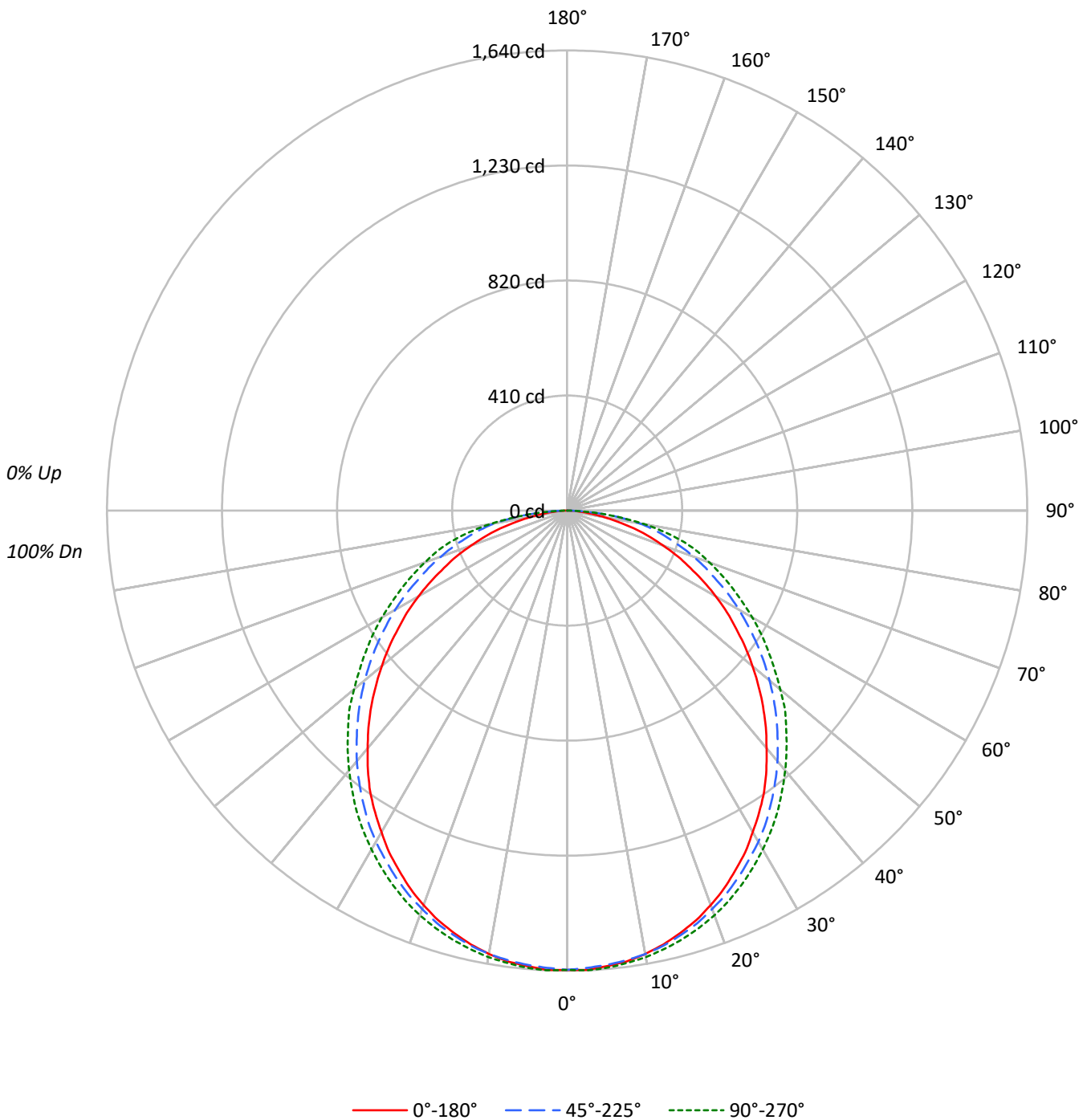
Input Watts (W): 32.829
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	99	95	106	101	97	93	97	93	90	93	90	88	89	87	85	83
2	98	90	83	77	96	88	81	76	84	79	74	81	76	72	78	74	71	69
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42
6	70	56	47	40	68	55	47	40	53	46	40	52	45	40	50	44	39	37
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2203	2203	2203
5°	2201	2195	2209
10°	2192	2192	2208
15°	2171	2181	2204
20°	2143	2164	2198
25°	2103	2142	2184
30°	2056	2118	2166
35°	2011	2084	2149
40°	1942	2049	2124
45°	1879	2008	2101
50°	1806	1971	2076
55°	1726	1934	2055
60°	1645	1904	2051
65°	1541	1871	2064
70°	1426	1881	2120
75°	1277	1916	2239
80°	1032	2030	2190
85°	777	1783	1737



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	155.0	3.3
10°-20°	442.8	9.5
20°-30°	665.7	14.3
30°-40°	792.9	17.0
40°-50°	811.5	17.4
50°-60°	730.6	15.7
60°-70°	573.8	12.3
70°-80°	372.4	8.0
80°-90°	115.2	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°	1263.5	27.1
0°-40°	2056.4	44.1
0°-60°	3598.5	77.2
0°-90°	4659.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4659.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1637	1637	1637	1637	1637	
5°	1630	1633	1625	1634	1636	155
15°	1559	1563	1566	1579	1582	439
25°	1416	1428	1443	1467	1471	653
35°	1224	1239	1268	1300	1308	764
45°	987	1011	1055	1095	1104	761
55°	736	768	824	867	876	659
65°	484	521	588	636	648	482
75°	246	293	369	419	431	260
85°	50	93	116	112	112	61
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1637.0	1637.0	1637.0	1637.0	1637.0
2.5°	1638.5	1638.5	1631.1	1638.5	1640.0
5°	1629.6	1632.6	1625.2	1634.1	1635.6
7.5°	1620.8	1620.8	1616.3	1625.2	1626.7
10°	1604.5	1606.0	1604.5	1614.8	1616.3
12.5°	1583.7	1586.7	1588.2	1598.6	1600.0
15°	1558.6	1563.0	1566.0	1579.3	1582.3
17.5°	1530.5	1534.9	1542.3	1557.1	1560.1
20°	1496.4	1502.3	1511.2	1530.5	1534.9
22.5°	1459.4	1465.3	1480.1	1497.9	1505.3
25°	1416.5	1428.3	1443.1	1466.8	1471.3
27.5°	1373.6	1383.9	1403.2	1428.3	1434.3
30°	1323.2	1339.5	1363.2	1388.4	1394.3
32.5°	1274.4	1290.7	1318.8	1345.4	1352.8
35°	1224.1	1238.9	1268.5	1299.6	1308.4
37.5°	1166.3	1185.6	1218.2	1249.2	1258.1
40°	1105.7	1129.3	1166.3	1198.9	1209.3
42.5°	1047.9	1073.1	1110.1	1145.6	1157.5
45°	987.3	1010.9	1055.3	1095.3	1104.2
47.5°	925.1	951.7	999.1	1039.1	1053.9
50°	862.9	891.0	941.4	982.8	991.7
52.5°	800.8	830.4	883.6	928.0	932.5
55°	735.6	768.2	824.4	867.4	876.2
57.5°	676.4	704.5	765.2	809.6	820.0
60°	611.3	642.4	707.5	749.0	762.3
62.5°	549.1	581.7	649.8	691.2	703.1
65°	484.0	521.0	587.6	636.5	648.3
67.5°	427.8	463.3	534.3	581.7	593.5
70°	362.6	402.6	478.1	526.9	538.8
72.5°	306.4	347.8	423.3	470.7	488.4
75°	245.7	293.1	368.6	418.9	430.7
77.5°	186.5	241.3	318.2	356.7	356.7
80°	133.2	190.9	262.0	279.7	282.7
82.5°	87.3	143.6	193.9	192.4	192.4
85°	50.3	93.2	115.5	112.5	112.5
87.5°	19.2	38.5	41.4	41.4	40.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)