

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: P260657

Luminaire Tested: **24CZ-LD5-60-UNV-L93050-W2A1-U-3000K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P260657
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25697)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ-LD5-60-UNV-L93050-W2A1-U-3000K
Description: CRUZE 2x4 TUNABLE WHITE LED TROFFER WITH RIBBED LENS
Light Source: (336) 90 CRI LEDS TUNED AT 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4692.9 lumens
Efficiency: N/A
Efficacy: 103.6 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.25 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

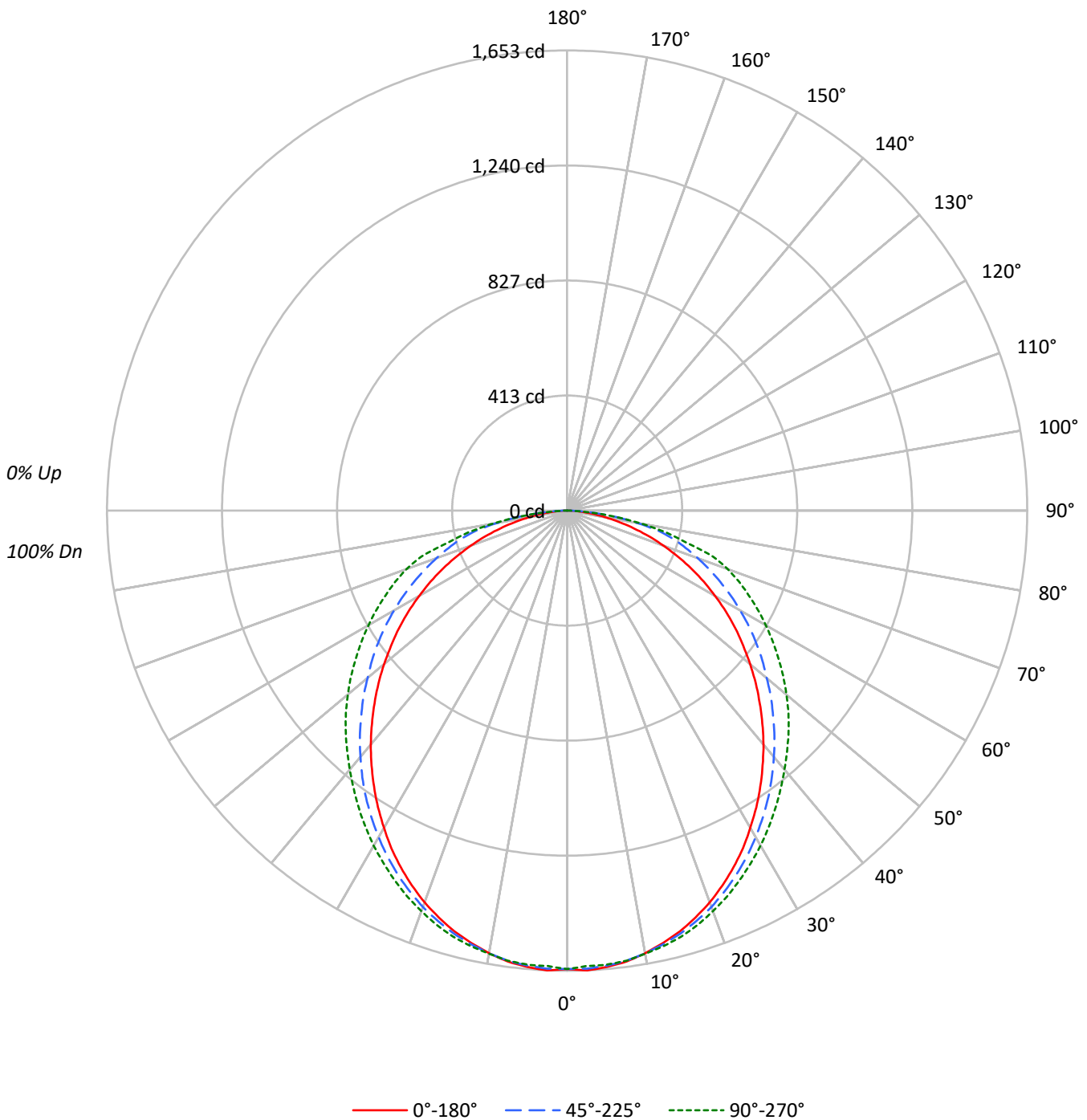
Input Watts (W): 45.286164
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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	99	95	106	101	97	93	97	93	90	93	90	88	89	87	85	83					83			
2	98	90	83	77	95	88	81	76	84	79	74	81	76	72	78	74	71	68					68			
3	89	78	70	63	87	77	69	63	74	67	62	71	65	61	68	64	60	57					57			
4	82	69	60	54	79	68	60	53	66	58	52	63	57	52	61	56	51	49					49			
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42					42			
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37					37			
7	64	51	42	35	63	50	41	35	48	41	35	47	40	35	45	39	35	32					32			
8	60	46	38	32	58	45	37	32	44	37	31	43	36	31	42	36	31	29					29			
9	56	42	34	28	54	42	34	28	41	33	28	40	33	28	38	32	28	26					26			
10	52	39	31	26	51	39	31	26	38	31	26	37	30	25	36	30	25	24					24			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2216	2216	2216
5°	2222	2216	2211
10°	2206	2206	2208
15°	2180	2191	2207
20°	2144	2170	2193
25°	2099	2140	2176
30°	2045	2104	2159
35°	1987	2069	2143
40°	1927	2029	2134
45°	1862	1990	2140
50°	1796	1958	2152
55°	1730	1945	2175
60°	1652	1933	2218
65°	1565	1934	2292
70°	1448	1966	2415
75°	1295	2055	2297
80°	1083	1967	2104
85°	818	1513	1439



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	155.6	3.3
10°-20°	443.0	9.4
20°-30°	662.2	14.1
30°-40°	785.6	16.7
40°-50°	808.5	17.2
50°-60°	741.7	15.8
60°-70°	599.7	12.8
70°-80°	389.2	8.3
80°-90°	107.3	2.3
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°	1260.8	26.9
0°-40°	2046.3	43.6
0°-60°	3596.6	76.6
0°-90°	4692.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4692.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1647	1647	1647	1647	1647	
5°	1645	1634	1640	1639	1637	156
15°	1565	1559	1573	1580	1584	441
25°	1414	1416	1441	1454	1465	651
35°	1210	1220	1260	1287	1305	757
45°	978	995	1046	1096	1125	755
55°	738	760	829	897	927	659
65°	492	521	607	688	720	486
75°	249	296	395	442	442	265
85°	53	90	98	95	93	65
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1647.0	1647.0	1647.0	1647.0	1647.0
2.5°	1653.4	1640.5	1647.0	1645.4	1637.3
5°	1645.4	1634.1	1640.5	1638.9	1637.3
7.5°	1634.1	1622.9	1630.9	1629.3	1630.9
10°	1614.8	1605.2	1614.8	1616.4	1616.4
12.5°	1590.7	1582.7	1595.5	1598.8	1602.0
15°	1565.0	1558.6	1573.1	1579.5	1584.3
17.5°	1532.9	1528.1	1545.7	1553.8	1560.2
20°	1497.5	1495.9	1515.2	1523.2	1531.3
22.5°	1457.4	1457.4	1479.9	1489.5	1500.7
25°	1414.0	1415.6	1441.3	1454.1	1465.4
27.5°	1367.4	1369.0	1399.5	1415.6	1428.4
30°	1316.0	1322.4	1354.5	1375.4	1389.9
32.5°	1264.5	1272.6	1307.9	1332.0	1348.1
35°	1209.9	1219.6	1259.7	1287.0	1304.7
37.5°	1153.7	1164.9	1208.3	1238.8	1259.7
40°	1097.4	1110.3	1155.3	1190.6	1214.7
42.5°	1038.0	1052.4	1102.3	1144.0	1169.7
45°	978.5	994.6	1046.0	1095.8	1124.8
47.5°	919.1	938.4	993.0	1047.6	1078.2
50°	858.0	877.3	935.2	997.8	1028.3
52.5°	797.0	819.5	883.7	948.0	978.5
55°	737.5	760.0	829.1	896.6	927.1
57.5°	676.5	699.0	774.5	845.2	875.7
60°	613.8	639.5	718.2	790.5	824.3
62.5°	552.7	580.1	663.6	740.7	772.9
65°	491.7	520.6	607.4	687.7	719.8
67.5°	429.0	462.8	552.7	634.7	668.4
70°	368.0	404.9	499.7	581.7	613.8
72.5°	308.5	348.7	446.7	530.2	549.5
75°	249.1	295.6	395.3	441.9	441.9
77.5°	192.8	244.2	337.4	355.1	364.7
80°	139.8	196.0	253.9	274.8	271.5
82.5°	93.2	149.4	181.6	181.6	176.7
85°	53.0	90.0	98.0	94.8	93.2
87.5°	22.5	33.7	30.5	24.1	20.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)