

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: P230033

Luminaire Tested: **24CZ-LD5-35-S-UNV-L935-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P230033
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25694)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ-LD5-35-S-UNV-L935-CD1-U
Description: CRUZE 2x4 LED TROFFER
WITH SMOOTH LENS
Light Source: (168) 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3069.0 lumens
Efficiency: N/A
Efficacy: 121.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

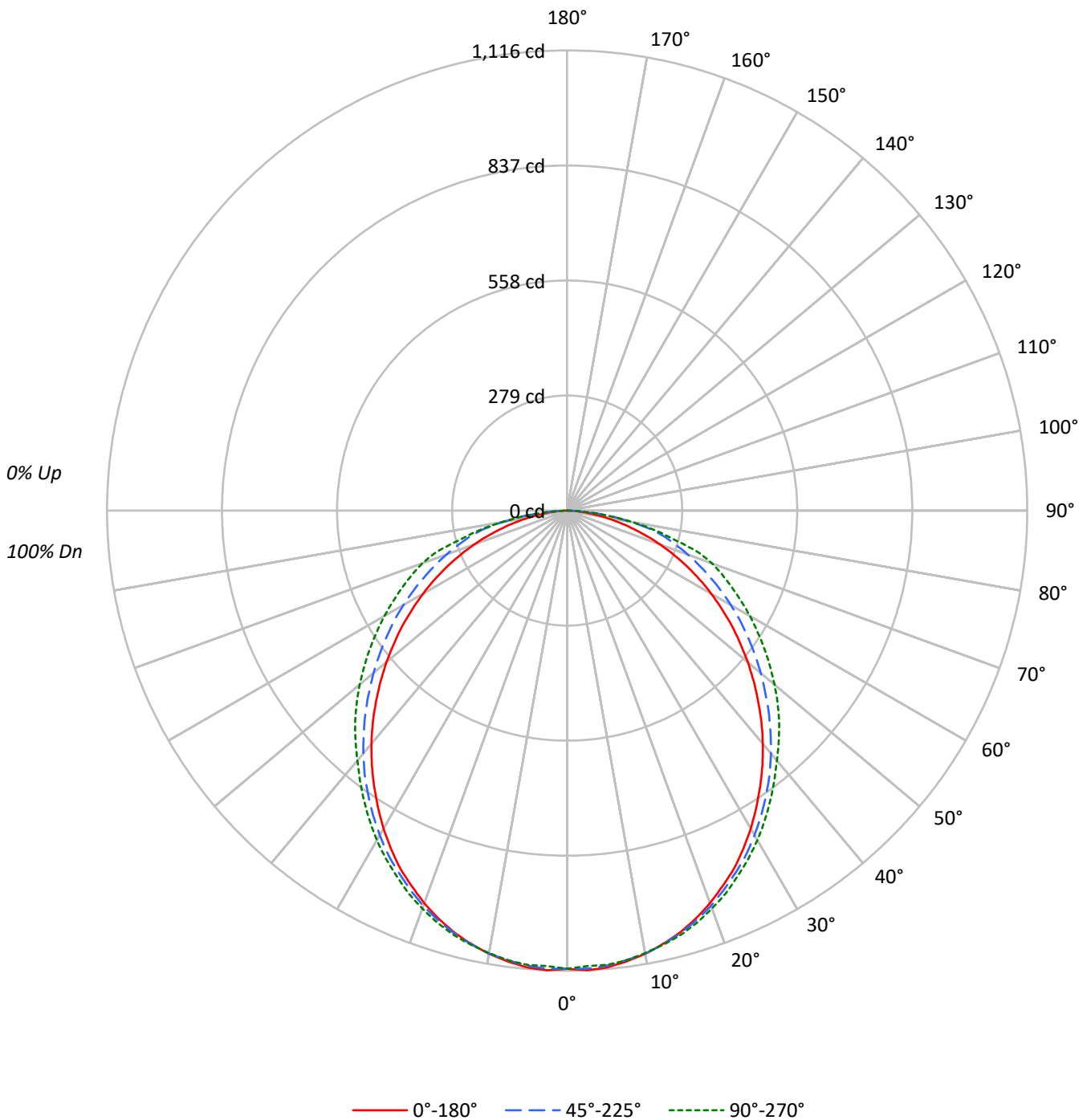
Input Watts (W): 25.32
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P230033

CATALOG NUMBER: 24CZ-LD5-35-S-UNV-L935-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P230033

CATALOG NUMBER: 24CZ-LD5-35-S-UNV-L935-CD1-U

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	104	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83
2	99	90	83	77	96	88	82	76	85	79	75	81	77	73	78	75	71	69
3	90	79	71	64	87	77	70	64	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	69	60	54	66	59	53	64	58	52	62	56	52	50
5	76	63	53	47	73	61	53	47	59	52	46	57	51	45	55	50	45	43
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	38
7	65	51	42	36	63	50	42	36	49	41	36	47	41	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	32	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	29	27
10	53	40	32	26	52	39	31	26	38	31	26	37	31	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1495	1495	1495
5°	1502	1496	1494
10°	1491	1490	1489
15°	1475	1478	1484
20°	1450	1461	1471
25°	1422	1437	1452
30°	1384	1412	1434
35°	1340	1382	1411
40°	1297	1351	1390
45°	1247	1315	1384
50°	1197	1283	1374
55°	1145	1255	1370
60°	1086	1234	1377
65°	1021	1219	1404
70°	940	1225	1470
75°	833	1269	1370
80°	697	1203	1234
85°	520	962	883



TEST NUMBER: P230033

CATALOG NUMBER: 24CZ-LD5-35-S-UNV-L935-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	105.0	3.4
10°-20°	298.7	9.7
20°-30°	445.2	14.5
30°-40°	524.1	17.1
40°-50°	532.6	17.4
50°-60°	478.8	15.6
60°-70°	378.3	12.3
70°-80°	240.0	7.8
80°-90°	66.2	2.2
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°	849.0	27.7
0°-40°	1373.1	44.7
0°-60°	2384.5	77.7
0°-90°	3069.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3069.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1111	1111	1111	1111	1111	
5°	1112	1103	1108	1106	1106	105
15°	1059	1054	1061	1064	1065	298
25°	958	957	968	974	978	440
35°	816	821	841	851	859	510
45°	656	665	691	712	727	506
55°	488	500	535	570	584	436
65°	321	337	383	425	441	318
75°	160	188	244	266	264	171
85°	34	58	62	57	57	41
90°	0	0	0	0	0	



TEST NUMBER: P230033

CATALOG NUMBER: 24CZ-LD5-35-S-UNV-L935-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1111.0	1111.0	1111.0	1111.0	1111.0
2.5°	1116.1	1108.0	1112.1	1110.0	1105.9
5°	1112.1	1102.9	1108.0	1105.9	1105.9
7.5°	1102.9	1095.7	1099.8	1098.8	1099.8
10°	1091.6	1084.5	1090.6	1090.6	1089.6
12.5°	1076.3	1070.2	1077.3	1077.3	1078.4
15°	1059.0	1053.8	1061.0	1064.1	1065.1
17.5°	1037.5	1032.4	1041.6	1044.7	1047.7
20°	1013.0	1011.0	1020.2	1023.2	1027.3
22.5°	985.4	985.4	994.6	998.7	1004.8
25°	957.9	956.8	968.1	974.2	978.3
27.5°	925.2	926.2	940.5	946.6	951.7
30°	890.5	892.5	908.8	916.0	923.1
32.5°	853.7	857.8	876.2	884.3	891.5
35°	815.9	821.0	841.4	850.6	858.8
37.5°	778.1	785.3	806.7	815.9	825.1
40°	738.3	744.4	768.9	780.2	791.4
42.5°	697.5	705.6	730.1	746.5	759.8
45°	655.6	664.8	691.3	711.8	727.1
47.5°	613.7	626.0	651.5	679.1	692.4
50°	571.9	584.1	612.7	643.3	656.6
52.5°	529.0	541.2	573.9	605.6	619.9
55°	488.1	500.4	535.1	569.8	584.1
57.5°	445.2	458.5	497.3	533.1	547.3
60°	403.4	416.6	458.5	496.3	511.6
62.5°	362.5	376.8	420.7	460.5	475.9
65°	320.6	337.0	382.9	424.8	441.1
67.5°	279.8	298.2	346.2	390.1	407.4
70°	239.0	260.4	311.5	356.4	373.7
72.5°	199.1	222.6	276.7	321.7	330.9
75°	160.3	187.9	244.1	265.5	263.5
77.5°	123.6	154.2	207.3	211.4	217.5
80°	89.9	123.6	155.2	163.4	159.3
82.5°	59.2	92.9	111.3	107.2	106.2
85°	33.7	58.2	62.3	57.2	57.2
87.5°	14.3	23.5	20.4	15.3	14.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)