

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: P230513

Luminaire Tested: **24CZ-LD5-45SE-RDP-UNV-L935-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P230513
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25696)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ-LD5-45SE-RDP-UNV-L935-CD1-U
Description: CRUZE 2x4 LED TROFFER
WITH RDP LENS
Light Source: (84) 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2591.8 lumens
Efficiency: N/A
Efficacy: 64.9 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

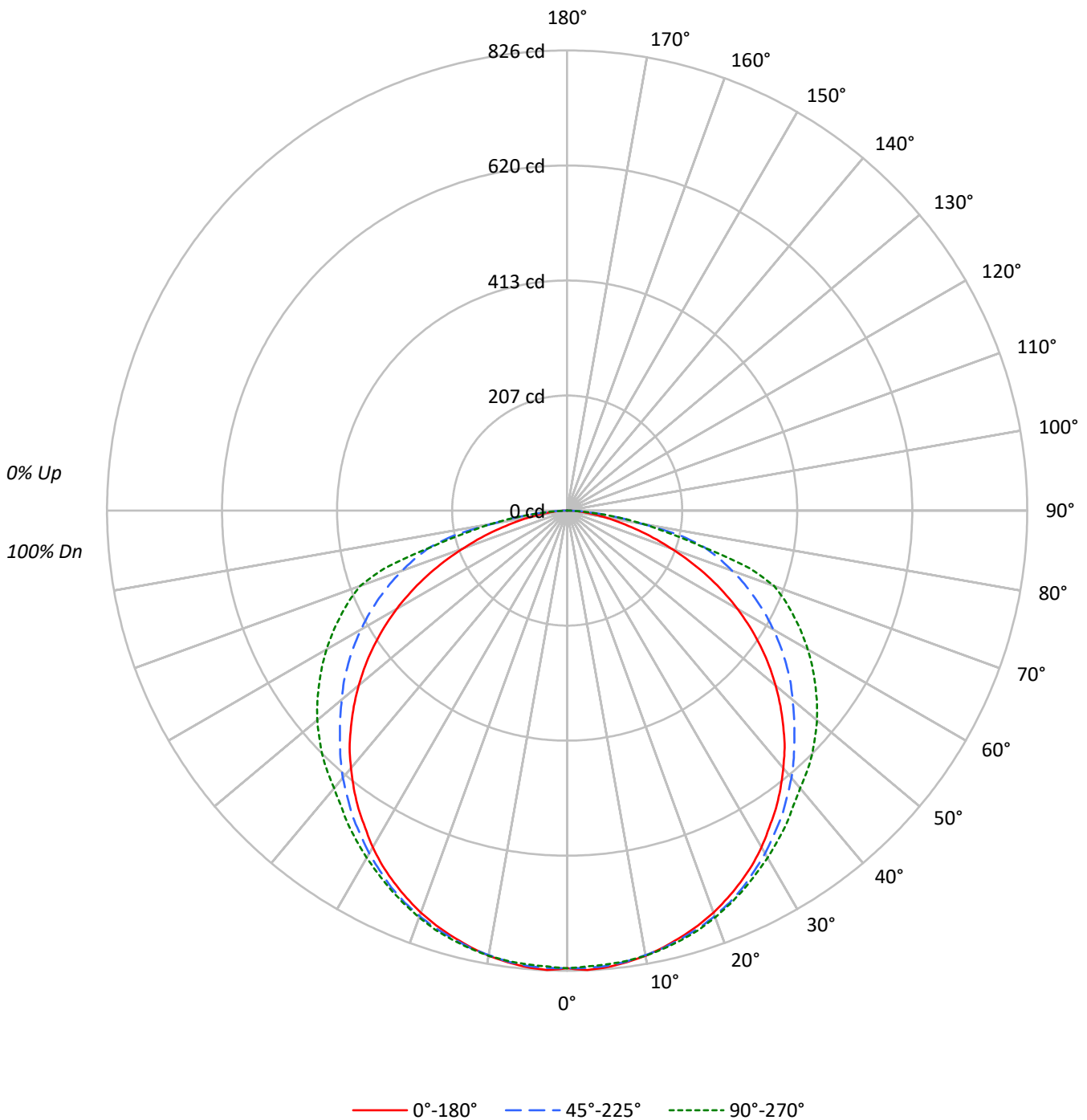
Input Watts (W): 39.91
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	98	94	105	101	97	93	96	93	90	92	90	87	89	87	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	60	70	64	59	67	62	58	56
4	81	68	59	52	78	67	58	52	64	57	51	62	56	50	60	54	50	47
5	74	61	51	45	72	60	51	44	57	50	44	55	49	43	54	48	43	41
6	68	55	45	39	66	54	45	38	52	44	38	50	43	38	48	42	37	35
7	63	49	40	34	61	48	40	34	47	39	34	45	38	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	42	35	30	40	34	29	27
9	55	41	33	27	53	41	32	27	39	32	27	38	32	27	37	31	27	25
10	51	38	30	24	50	37	30	24	36	29	24	35	29	24	35	28	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1105	1105	1105
5°	1111	1108	1105
10°	1109	1107	1109
15°	1104	1107	1111
20°	1100	1109	1113
25°	1093	1108	1114
30°	1084	1104	1118
35°	1073	1102	1127
40°	1060	1100	1143
45°	1044	1097	1182
50°	1023	1106	1226
55°	994	1125	1275
60°	951	1150	1343
65°	885	1186	1430
70°	783	1240	1556
75°	657	1327	1306
80°	524	1048	1087
85°	414	709	650



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	77.9	3.0
10°-20°	224.3	8.7
20°-30°	342.6	13.2
30°-40°	418.8	16.2
40°-50°	448.3	17.3
50°-60°	430.0	16.6
60°-70°	363.1	14.0
70°-80°	232.0	9.0
80°-90°	54.9	2.1
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°	644.8	24.9
0°-40°	1063.6	41.0
0°-60°	1941.9	74.9
0°-90°	2591.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2591.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	822	822	822	822	822	
5°	823	818	820	819	818	78
15°	792	790	795	797	797	224
25°	736	735	746	749	750	339
35°	653	658	671	680	686	408
45°	549	558	577	604	621	423
55°	424	438	480	523	544	378
65°	278	305	372	425	449	274
75°	126	180	255	260	251	136
85°	27	45	46	45	42	32
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	821.6	821.6	821.6	821.6	821.6
2.5°	825.5	820.4	821.6	821.6	819.1
5°	822.9	817.8	820.4	819.1	817.8
7.5°	817.8	814.0	816.5	816.5	815.3
10°	811.4	807.6	810.2	811.4	811.4
12.5°	802.5	800.0	803.8	803.8	805.1
15°	792.3	789.7	794.8	797.4	797.4
17.5°	780.8	779.5	785.9	787.2	788.5
20°	768.1	766.8	774.4	774.4	777.0
22.5°	752.7	751.5	761.7	761.7	764.2
25°	736.2	734.9	746.4	748.9	750.2
27.5°	718.3	717.0	728.5	732.3	734.9
30°	697.9	697.9	710.6	715.7	719.6
32.5°	674.9	678.7	690.2	697.9	703.0
35°	653.2	658.3	671.1	680.0	686.4
37.5°	629.0	634.1	648.1	659.6	667.3
40°	603.5	609.9	626.4	639.2	650.7
42.5°	578.0	584.3	602.2	621.3	636.6
45°	548.6	557.5	576.7	603.5	621.3
47.5°	519.3	528.2	552.4	585.6	603.5
50°	488.6	498.9	528.2	566.5	585.6
52.5°	456.8	468.2	505.2	546.1	565.2
55°	423.6	437.6	479.7	523.1	543.5
57.5°	389.1	404.4	454.2	500.1	521.8
60°	353.4	372.5	427.4	475.9	498.9
62.5°	316.4	339.4	400.6	450.4	474.6
65°	278.1	304.9	372.5	424.9	449.1
67.5°	238.6	274.3	344.5	399.3	423.6
70°	199.0	241.1	315.1	371.3	395.5
72.5°	162.0	210.5	285.8	338.1	343.2
75°	126.3	179.9	255.2	260.3	251.3
77.5°	94.4	149.3	210.5	187.5	186.3
80°	67.6	119.9	135.2	139.1	140.3
82.5°	44.7	90.6	88.0	90.6	89.3
85°	26.8	44.7	45.9	44.7	42.1
87.5°	12.8	16.6	12.8	11.5	10.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)