

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: P276612

Luminaire Tested: **24CZ2-35HE-S-UNV-L92765-W2A1-U-5500K**

Issue Date: 3/3/2020

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.

**Test Information**

Test Method: LM-79-08  
Report Number: P276612  
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: 24CZ2-35HE-S-UNV-L92765-W2A1-U-5500K  
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS  
Light Source: (336) 90 CRI LEDS TUNED TO 5500K CCT  
Ballast/Driver: ELECTRONIC DRIVER  
Luminaire Equipment: Sample No.   Condition   Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3283.2 lumens  
Efficiency: N/A  
Efficacy: 132.2 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

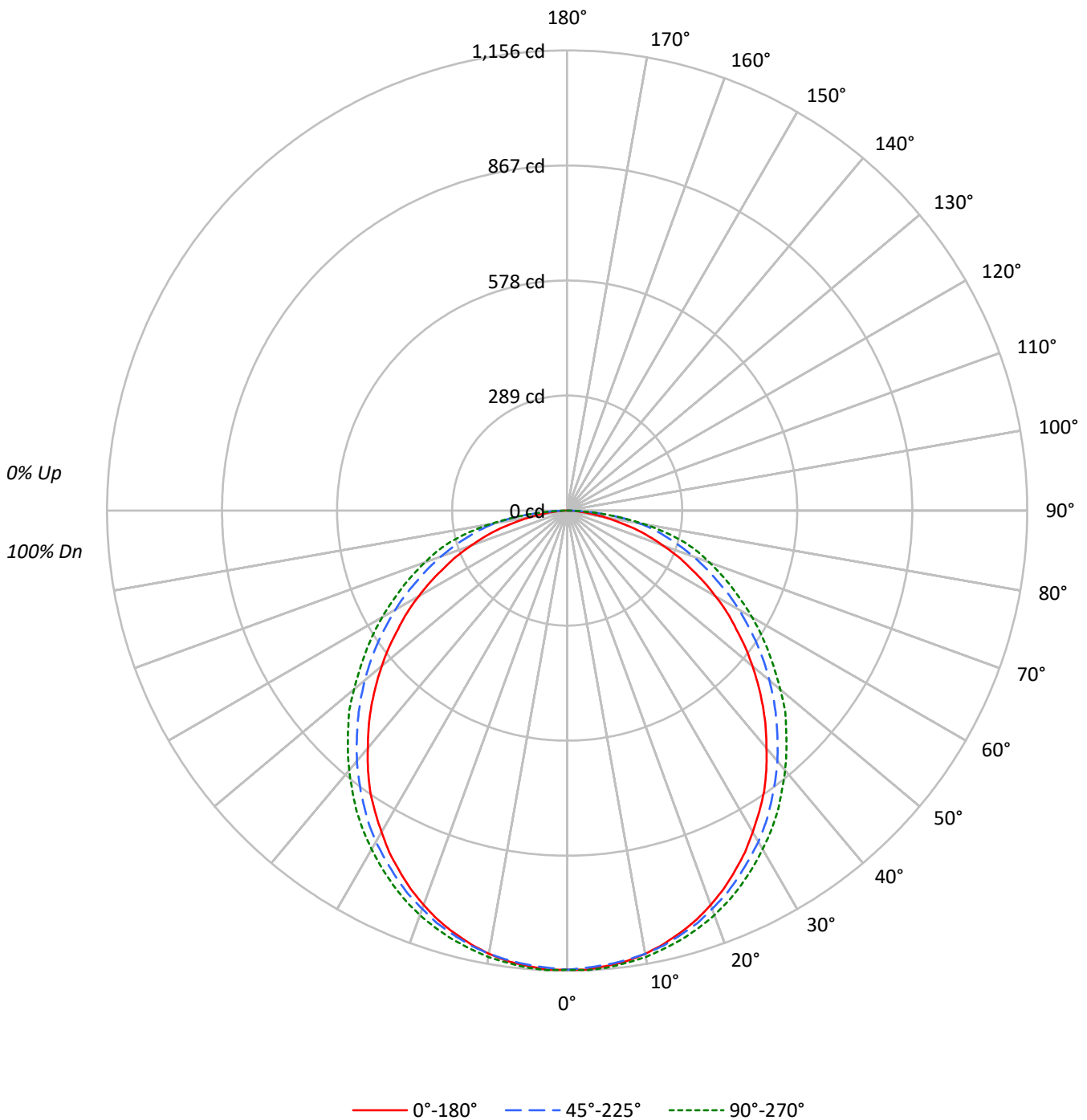
Input Watts (W): 24.831  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	1552	1552	1552
5°	1551	1547	1556
10°	1545	1545	1556
15°	1530	1537	1553
20°	1510	1525	1548
25°	1482	1510	1539
30°	1448	1492	1526
35°	1417	1468	1514
40°	1368	1443	1496
45°	1324	1415	1480
50°	1273	1388	1463
55°	1216	1363	1448
60°	1159	1341	1445
65°	1086	1318	1454
70°	1005	1325	1493
75°	900	1350	1578
80°	728	1430	1543
85°	548	1255	1224



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	109.2	3.3
10°-20°	312.0	9.5
20°-30°	469.0	14.3
30°-40°	558.7	17.0
40°-50°	571.8	17.4
50°-60°	514.8	15.7
60°-70°	404.3	12.3
70°-80°	262.4	8.0
80°-90°	81.2	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°	890.2	27.1
0°-40°	1448.9	44.1
0°-60°	2535.4	77.2
0°-90°	3283.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3283.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1153	1153	1153	1153	1153	
5°	1148	1150	1145	1151	1152	109
15°	1098	1101	1103	1113	1115	310
25°	998	1006	1017	1034	1037	460
35°	862	873	894	916	922	538
45°	696	712	744	772	778	536
55°	518	541	581	611	617	465
65°	341	367	414	448	457	339
75°	173	206	260	295	304	183
85°	36	66	81	79	79	43
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1153.4	1153.4	1153.4	1153.4	1153.4
2.5°	1154.4	1154.4	1149.2	1154.4	1155.5
5°	1148.2	1150.3	1145.1	1151.3	1152.4
7.5°	1141.9	1141.9	1138.8	1145.1	1146.1
10°	1130.5	1131.5	1130.5	1137.8	1138.8
12.5°	1115.9	1117.9	1119.0	1126.3	1127.3
15°	1098.1	1101.3	1103.3	1112.7	1114.8
17.5°	1078.3	1081.4	1086.7	1097.1	1099.2
20°	1054.3	1058.5	1064.8	1078.3	1081.4
22.5°	1028.3	1032.4	1042.9	1055.4	1060.6
25°	998.0	1006.4	1016.8	1033.5	1036.6
27.5°	967.8	975.1	988.6	1006.4	1010.5
30°	932.3	943.8	960.5	978.2	982.4
32.5°	897.9	909.4	929.2	948.0	953.2
35°	862.4	872.9	893.7	915.6	921.9
37.5°	821.8	835.3	858.3	880.2	886.4
40°	779.0	795.7	821.8	844.7	852.0
42.5°	738.3	756.1	782.1	807.2	815.5
45°	695.6	712.3	743.6	771.7	778.0
47.5°	651.8	670.6	703.9	732.1	742.5
50°	608.0	627.8	663.3	692.5	698.7
52.5°	564.2	585.0	622.6	653.9	657.0
55°	518.3	541.2	580.9	611.1	617.4
57.5°	476.6	496.4	539.2	570.4	577.7
60°	430.7	452.6	498.5	527.7	537.1
62.5°	386.9	409.8	457.8	487.0	495.4
65°	341.0	367.1	414.0	448.4	456.8
67.5°	301.4	326.4	376.5	409.8	418.2
70°	255.5	283.7	336.8	371.3	379.6
72.5°	215.9	245.1	298.3	331.6	344.1
75°	173.1	206.5	259.7	295.1	303.5
77.5°	131.4	170.0	224.2	251.3	251.3
80°	93.9	134.5	184.6	197.1	199.2
82.5°	61.5	101.2	136.6	135.6	135.6
85°	35.5	65.7	81.3	79.3	79.3
87.5°	13.6	27.1	29.2	29.2	28.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)