

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: P345085

Luminaire Tested: **24CZ-35SE-L850-HRP-UNV-CD1-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P345085  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1905-313-5)  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ-35SE-L850-HRP-UNV-CD1-U  
Description: CRUZE 2X4 WITH HRP LENS INSERT  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3307.0 lumens  
Efficiency: N/A  
Efficacy: 115.6 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.29 / 1.4  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

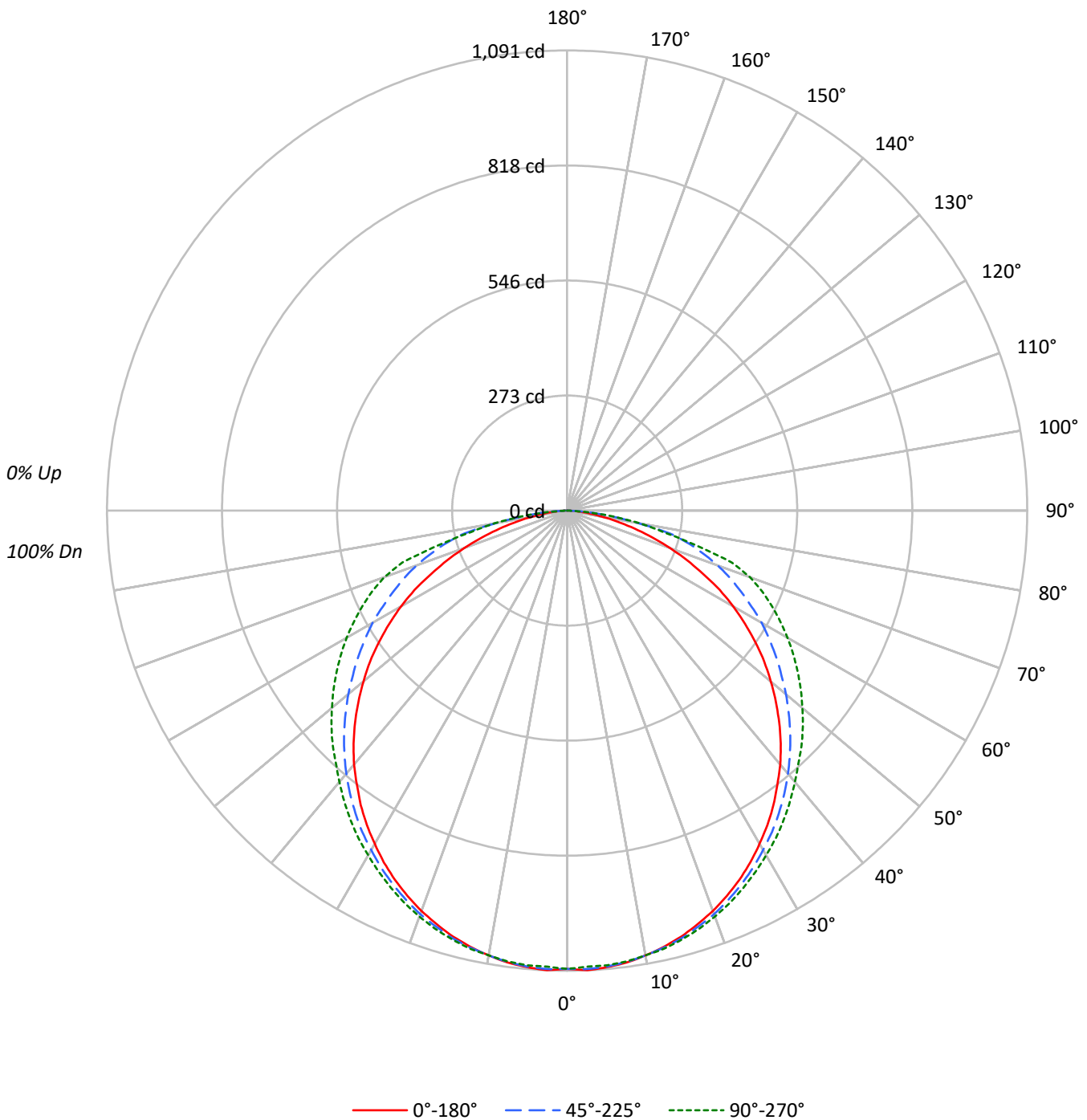
Input Watts (W): 28.6  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	105	101	97	93	97	93	90	93	90	87	89	87	85	83
2	98	89	82	76	95	87	81	75	84	78	74	81	76	72	77	74	70	68
3	89	78	70	63	86	76	69	62	73	67	61	71	65	60	68	63	59	57
4	81	69	60	53	79	68	59	52	65	58	52	63	56	51	60	55	50	48
5	75	61	52	45	72	60	52	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	45	39	51	44	38	49	43	38	36
7	64	50	41	35	62	49	41	34	48	40	34	46	39	34	45	38	34	32
8	59	45	37	31	58	45	36	31	43	36	31	42	35	30	41	35	30	28
9	55	42	33	28	54	41	33	28	40	33	27	39	32	27	38	32	27	25
10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23

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

	0°	45°	90°
0°	1462	1462	1462
5°	1468	1466	1462
10°	1463	1463	1463
15°	1456	1462	1466
20°	1446	1458	1466
25°	1434	1451	1466
30°	1417	1444	1466
35°	1401	1438	1471
40°	1381	1431	1476
45°	1353	1423	1496
50°	1320	1417	1524
55°	1279	1419	1565
60°	1224	1433	1624
65°	1132	1448	1705
70°	1020	1494	1811
75°	861	1539	1620
80°	669	1317	1361
85°	482	897	787



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	103.0	3.1
10°-20°	295.7	8.9
20°-30°	449.7	13.6
30°-40°	546.4	16.5
40°-50°	576.7	17.4
50°-60°	541.9	16.4
60°-70°	446.1	13.5
70°-80°	281.1	8.5
80°-90°	66.4	2.0
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°	848.5	25.7
0°-40°	1394.9	42.2
0°-60°	2513.5	76.0
0°-90°	3307.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3307.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1087	1087	1087	1087	1087	
5°	1087	1081	1085	1084	1082	103
15°	1046	1041	1050	1053	1053	295
25°	966	965	978	983	987	445
35°	853	857	876	887	895	533
45°	711	722	748	769	786	548
55°	545	565	605	647	667	487
65°	356	390	455	513	536	353
75°	166	217	296	323	312	177
85°	31	52	58	54	51	39
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1086.6	1086.6	1086.6	1086.6	1086.6
2.5°	1090.8	1083.7	1088.0	1086.6	1082.3
5°	1086.6	1080.9	1085.1	1083.7	1082.3
7.5°	1080.9	1075.2	1079.5	1078.1	1078.1
10°	1071.0	1066.7	1071.0	1071.0	1071.0
12.5°	1059.6	1055.4	1061.1	1062.5	1063.9
15°	1045.5	1041.2	1049.7	1052.6	1052.6
17.5°	1028.5	1025.6	1034.1	1037.0	1039.8
20°	1010.1	1008.6	1018.6	1021.4	1024.2
22.5°	988.8	988.8	998.7	1001.6	1007.2
25°	966.1	964.7	977.5	983.1	987.4
27.5°	940.6	940.6	954.8	961.9	966.1
30°	912.3	915.1	929.3	937.8	943.5
32.5°	884.0	886.8	903.8	913.7	920.8
35°	852.8	857.1	875.5	886.8	895.3
37.5°	818.8	825.9	845.7	858.5	868.4
40°	786.2	791.9	814.6	828.7	840.1
42.5°	749.4	759.3	782.0	799.0	811.7
45°	711.1	722.5	748.0	769.2	786.2
47.5°	671.5	685.6	712.6	740.9	757.9
50°	630.4	646.0	677.1	711.1	728.1
52.5°	589.3	606.3	640.3	680.0	698.4
55°	545.4	565.2	604.9	647.4	667.2
57.5°	500.1	522.7	568.1	616.2	636.1
60°	454.7	478.8	532.7	580.8	603.5
62.5°	408.0	434.9	493.0	548.2	569.5
65°	355.6	389.6	454.7	512.8	535.5
67.5°	307.4	342.8	417.9	476.0	500.1
70°	259.2	300.3	379.7	437.7	460.4
72.5°	211.1	259.2	337.2	396.7	409.4
75°	165.7	216.7	296.1	323.0	311.7
77.5°	121.8	178.5	249.3	235.2	232.3
80°	86.4	141.7	170.0	171.4	175.7
82.5°	55.2	104.8	110.5	111.9	113.3
85°	31.2	52.4	58.1	53.8	51.0
87.5°	14.2	17.0	14.2	9.9	8.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)