

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: NEO-RAY

Report Number: P334763

Luminaire Tested: **S123IW-S1320U835-4F0-1E-UDD**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P334763  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-5)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S123IW-S1320U835-4F0-1E-UDD  
Description: DEFINE 3 INDIRECT LED LUMINAIRE, NO LENS  
WALL MOUNT, 1320 LUMENS PER FOOT  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

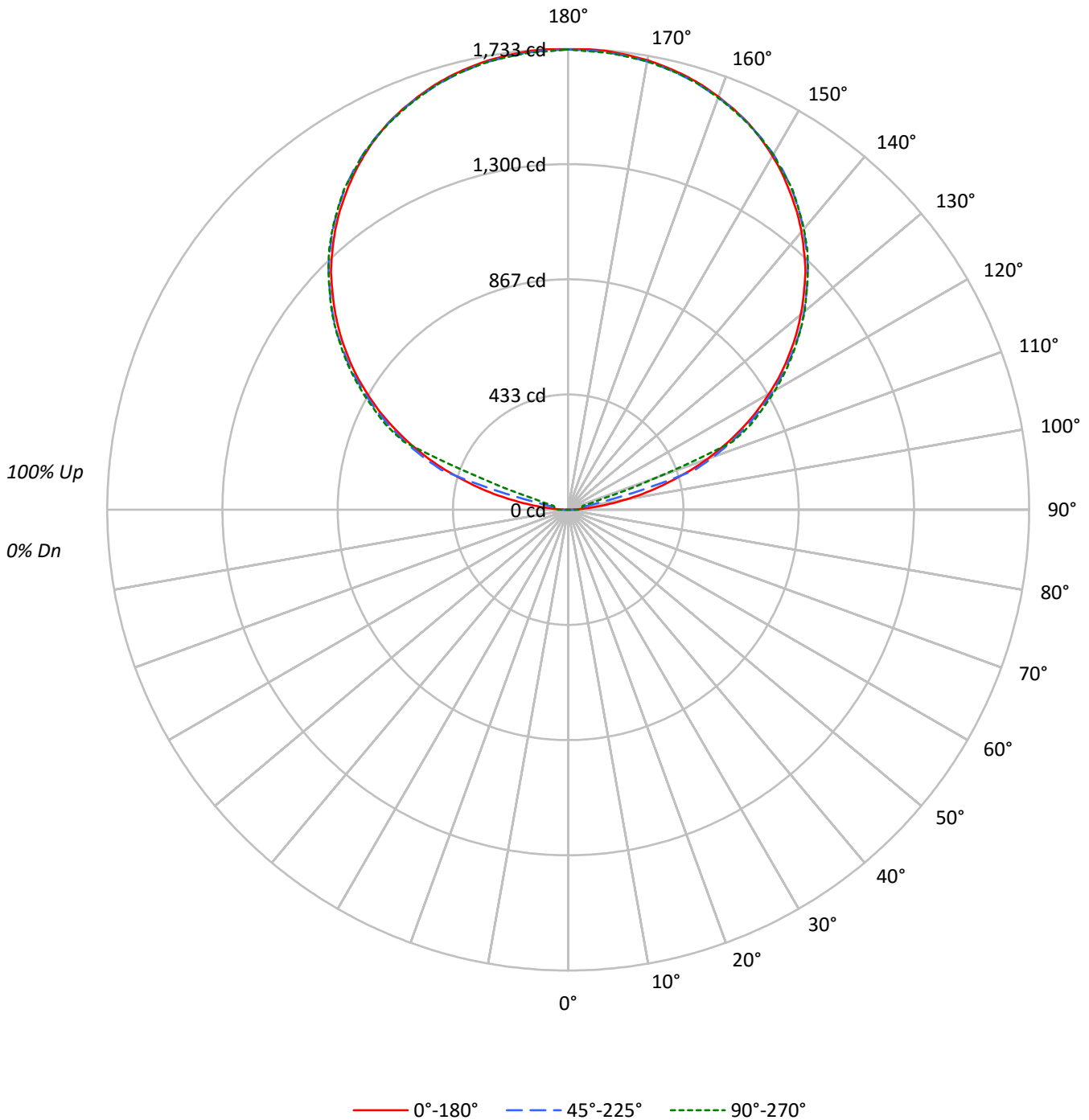
Lumens per Lamp: N/A  
Luminaire Lumens: 5279.7 lumens  
Efficiency: N/A  
Efficacy: 205.4 lumens/watt  
Spacing Criteria (0/90/45): - / - / -  
Luminous Opening: Rectangular (W 0.25' x L: 4' x H: 0')  
CIE Type: Indirect

Input Watts (W): 25.7  
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: P334763  
CATALOG NUMBER: S123IW-S1320U835-4F0-1E-UDD

### Luminous Intensity Polar Plot





TEST NUMBER: P334763

CATALOG NUMBER: S123IW-S1320U835-4F0-1E-UDD

**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	95	95	95	95	81	81	81	81	56	56	56	32	32	32	10	10	10	0
1	87	83	79	76	74	71	68	65	48	47	45	28	27	26	9	9	8	0
2	79	72	66	62	67	62	57	53	42	40	37	24	23	22	8	7	7	0
3	72	63	56	51	61	54	49	44	37	34	31	21	20	18	7	6	6	0
4	65	56	48	43	56	48	42	37	33	29	26	19	17	16	6	6	5	0
5	60	49	42	36	51	42	36	32	29	25	22	17	15	13	5	5	4	0
6	55	44	36	31	47	38	32	27	26	22	19	15	13	11	5	4	4	0
7	50	39	32	27	43	34	28	23	23	19	17	14	11	10	4	4	3	0
8	47	35	28	23	40	30	24	20	21	17	14	12	10	9	4	3	3	0
9	43	32	25	20	37	27	22	18	19	15	13	11	9	8	4	3	3	0
10	40	29	22	18	34	25	19	16	17	14	11	10	8	7	3	3	2	0

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

	0°	45°	90°
0°	0	0	0
5°	0	0	0
10°	0	0	0
15°	0	0	0
20°	0	0	0
25°	0	0	0
30°	0	0	0
35°	0	0	0
40°	0	0	0
45°	0	0	0
50°	0	0	0
55°	0	0	0
60°	0	0	0
65°	0	0	0
70°	0	0	0
75°	0	0	0
80°	0	0	0
85°	0	0	0



TEST NUMBER: P334763

CATALOG NUMBER: S123IW-S1320U835-4F0-1E-UDD

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	0.0	0.0
10°-20°	0.0	0.0
20°-30°	0.0	0.0
30°-40°	0.0	0.0
40°-50°	0.0	0.0
50°-60°	0.0	0.0
60°-70°	0.0	0.0
70°-80°	0.0	0.0
80°-90°	3.5	0.1
90°-100°	61.0	1.2
100°-110°	295.1	5.6
110°-120°	723.1	13.7
120°-130°	917.9	17.4
130°-140°	980.6	18.6
140°-150°	917.0	17.4
150°-160°	739.6	14.0
160°-170°	477.3	9.0
170°-180°	164.5	3.1
0°-30°	0.0	0.0
0°-40°	0.0	0.0
0°-60°	0.0	0.0
0°-90°	3.5	0.1
90°-120°	1079.2	20.4
90°-150°	3894.8	73.8
90°-180°	5276.0	99.9
0°-180°	5279.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	0	0	0	0	0	
5°	0	0	0	0	0	0
15°	0	0	0	0	0	0
25°	0	0	0	0	0	0
35°	0	0	0	0	0	0
45°	0	0	0	0	0	0
55°	0	0	0	0	0	0
65°	0	0	0	0	0	0
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	1	14	31	36	39	4
95°	78	26	40	49	49	94
105°	383	397	282	54	57	406
115°	719	726	738	751	756	710
125°	1013	1024	1029	1031	1034	905
135°	1261	1269	1274	1278	1274	971
145°	1456	1465	1467	1470	1470	911
155°	1603	1601	1602	1609	1601	739
165°	1691	1687	1686	1696	1687	478
175°	1731	1724	1726	1735	1724	165
180°	1731	1731	1731	1731	1731	



TEST NUMBER: P334763

CATALOG NUMBER: S123IW-S1320U835-4F0-1E-UDD

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	0.0	0.0	0.0	0.0	0.0
2.5°	0.0	0.0	0.0	0.0	0.0
5°	0.0	0.0	0.0	0.0	0.0
7.5°	0.0	0.0	0.0	0.0	0.0
10°	0.0	0.0	0.0	0.0	0.0
12.5°	0.0	0.0	0.0	0.0	0.0
15°	0.0	0.0	0.0	0.0	0.0
17.5°	0.0	0.0	0.0	0.0	0.0
20°	0.0	0.0	0.0	0.0	0.0
22.5°	0.0	0.0	0.0	0.0	0.0
25°	0.0	0.0	0.0	0.0	0.0
27.5°	0.0	0.0	0.0	0.0	0.0
30°	0.0	0.0	0.0	0.0	0.0
32.5°	0.0	0.0	0.0	0.0	0.0
35°	0.0	0.0	0.0	0.0	0.0
37.5°	0.0	0.0	0.0	0.0	0.0
40°	0.0	0.0	0.0	0.0	0.0
42.5°	0.0	0.0	0.0	0.0	0.0
45°	0.0	0.0	0.0	0.0	0.0
47.5°	0.0	0.0	0.0	0.0	0.0
50°	0.0	0.0	0.0	0.0	0.0
52.5°	0.0	0.0	0.0	0.0	0.0
55°	0.0	0.0	0.0	0.0	0.0
57.5°	0.0	0.0	0.0	0.0	0.0
60°	0.0	0.0	0.0	0.0	0.0
62.5°	0.0	0.0	0.0	0.0	0.0
65°	0.0	0.0	0.0	0.0	0.0
67.5°	0.0	0.0	0.0	0.0	0.0
70°	0.0	0.0	0.0	0.0	0.0
72.5°	0.0	0.0	0.0	0.0	0.0
75°	0.0	0.0	0.0	0.0	0.0
77.5°	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0
90°	1.3	14.1	30.9	36.0	38.6
92.5°	29.6	21.9	33.4	42.4	43.7
95°	78.4	25.7	39.9	48.9	48.9
97.5°	142.7	106.7	41.1	51.4	52.7
100°	217.3	243.0	42.4	52.7	54.0
102.5°	302.2	318.9	95.2	52.7	55.3
105°	383.2	397.3	281.6	54.0	56.6
107.5°	469.3	480.9	500.2	302.2	133.7
110°	555.5	565.8	579.9	537.5	353.6



TEST NUMBER: P334763

CATALOG NUMBER: S123IW-S1320U835-4F0-1E-UDD

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	637.8	646.8	660.9	672.5	669.9
115°	718.8	726.5	738.1	750.9	756.1
117.5°	798.5	807.5	813.9	824.2	825.5
120°	871.8	883.4	887.2	897.5	897.5
122.5°	946.4	955.4	960.5	966.9	968.2
125°	1013.2	1023.5	1028.7	1031.2	1033.8
127.5°	1080.1	1090.4	1096.8	1100.7	1098.1
130°	1141.8	1152.1	1157.2	1162.4	1159.8
132.5°	1201.0	1211.2	1215.1	1220.3	1216.4
135°	1261.4	1269.1	1274.3	1278.1	1274.3
137.5°	1312.8	1323.1	1325.7	1332.1	1329.5
140°	1364.3	1372.0	1375.8	1381.0	1378.4
142.5°	1411.8	1419.6	1423.4	1427.3	1423.4
145°	1455.6	1464.6	1467.1	1469.7	1469.7
147.5°	1498.0	1504.4	1507.0	1509.6	1503.1
150°	1536.6	1540.4	1543.0	1545.6	1541.7
152.5°	1571.3	1572.6	1573.9	1579.0	1572.6
155°	1603.4	1600.9	1602.1	1608.6	1600.9
157.5°	1629.1	1629.1	1627.9	1635.6	1625.3
160°	1652.3	1651.0	1649.7	1657.4	1648.4
162.5°	1674.1	1670.3	1669.0	1678.0	1670.3
165°	1690.9	1687.0	1685.7	1696.0	1687.0
167.5°	1705.0	1699.9	1699.9	1710.2	1699.9
170°	1716.6	1711.4	1711.4	1721.7	1711.4
172.5°	1724.3	1717.9	1719.2	1729.4	1717.9
175°	1730.7	1724.3	1725.6	1734.6	1724.3
177.5°	1733.3	1726.9	1728.2	1738.4	1725.6
180°	1730.7	1730.7	1730.7	1730.7	1730.7

(END OF REPORT)