

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: P334788

Luminaire Tested: **S123IW-S1320U940-4F0-1E-UDD**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P334788  
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-S1320U940-4F0-1E-UDD  
Description: DEFINE 3 INDIRECT LED LUMINAIRE, NO LENS  
WALL MOUNT, 1320 LUMENS PER FOOT  
Light Source: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4708.0 lumens  
Efficiency: N/A  
Efficacy: 183.2 lumens/watt  
Spacing Criteria (0/90/45): - / - / -  
Luminous Opening: Rectangular (W 0.25' x L: 4' x H: 0')  
CIE Type: Indirect

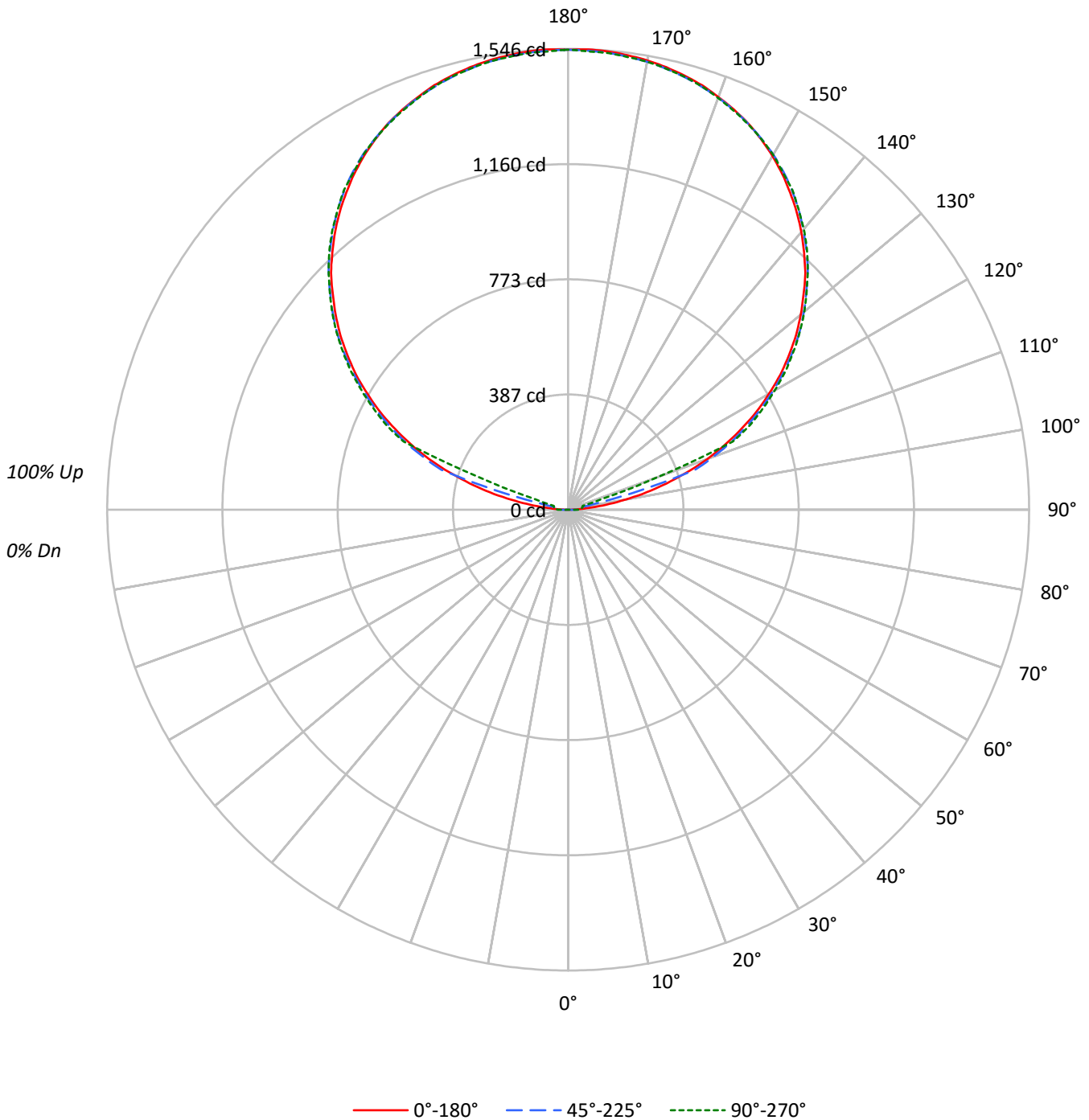
Input Watts (W): 25.7  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P334788

CATALOG NUMBER: S123IW-S1320U940-4F0-1E-UDD

### Luminous Intensity Polar Plot





TEST NUMBER: P334788

CATALOG NUMBER: S123IW-S1320U940-4F0-1E-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: P334788

CATALOG NUMBER: S123IW-S1320U940-4F0-1E-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°	3.1	0.1
90°-100°	54.4	1.2
100°-110°	263.1	5.6
110°-120°	644.8	13.7
120°-130°	818.5	17.4
130°-140°	874.4	18.6
140°-150°	817.7	17.4
150°-160°	659.5	14.0
160°-170°	425.6	9.0
170°-180°	146.7	3.1
0°-30°	0.0	0.0
0°-40°	0.0	0.0
0°-60°	0.0	0.0
0°-90°	3.1	0.1
90°-120°	962.3	20.4
90°-150°	3473.0	73.8
90°-180°	4705.0	99.9
0°-180°	4708.0	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	13	28	32	34	4
95°	70	23	36	44	44	84
105°	342	354	251	48	50	362
115°	641	648	658	670	674	633
125°	904	913	917	920	922	807
135°	1125	1132	1136	1140	1136	866
145°	1298	1306	1308	1310	1310	813
155°	1430	1428	1429	1434	1428	659
165°	1508	1504	1503	1512	1504	426
175°	1543	1538	1539	1547	1538	147
180°	1543	1543	1543	1543	1543	



TEST NUMBER: P334788

CATALOG NUMBER: S123IW-S1320U940-4F0-1E-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°	1.1	12.6	27.5	32.1	34.4
92.5°	26.4	19.5	29.8	37.8	39.0
95°	69.9	22.9	35.5	43.6	43.6
97.5°	127.3	95.2	36.7	45.9	47.0
100°	193.8	216.7	37.8	47.0	48.2
102.5°	269.4	284.4	84.8	47.0	49.3
105°	341.7	354.3	251.1	48.2	50.4
107.5°	418.5	428.8	446.0	269.4	119.2
110°	495.3	504.5	517.1	479.3	315.3



TEST NUMBER: P334788

CATALOG NUMBER: S123IW-S1320U940-4F0-1E-UDD

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	568.7	576.7	589.3	599.7	597.4
115°	640.9	647.8	658.1	669.6	674.2
117.5°	712.0	720.1	725.8	735.0	736.1
120°	777.4	787.7	791.1	800.3	800.3
122.5°	843.9	851.9	856.5	862.2	863.4
125°	903.5	912.7	917.3	919.6	921.9
127.5°	963.1	972.3	978.0	981.5	979.2
130°	1018.2	1027.3	1031.9	1036.5	1034.2
132.5°	1070.9	1080.1	1083.5	1088.1	1084.7
135°	1124.8	1131.7	1136.3	1139.7	1136.3
137.5°	1170.7	1179.8	1182.1	1187.9	1185.6
140°	1216.5	1223.4	1226.8	1231.4	1229.1
142.5°	1259.0	1265.8	1269.3	1272.7	1269.3
145°	1297.9	1306.0	1308.3	1310.5	1310.5
147.5°	1335.8	1341.5	1343.8	1346.1	1340.4
150°	1370.2	1373.6	1375.9	1378.2	1374.8
152.5°	1401.1	1402.3	1403.4	1408.0	1402.3
155°	1429.8	1427.5	1428.6	1434.4	1427.5
157.5°	1452.7	1452.7	1451.6	1458.5	1449.3
160°	1473.4	1472.2	1471.1	1477.9	1469.9
162.5°	1492.9	1489.4	1488.3	1496.3	1489.4
165°	1507.8	1504.3	1503.2	1512.3	1504.3
167.5°	1520.4	1515.8	1515.8	1525.0	1515.8
170°	1530.7	1526.1	1526.1	1535.3	1526.1
172.5°	1537.6	1531.8	1533.0	1542.2	1531.8
175°	1543.3	1537.6	1538.7	1546.7	1537.6
177.5°	1545.6	1539.9	1541.0	1550.2	1538.7
180°	1543.3	1543.3	1543.3	1543.3	1543.3

(END OF REPORT)