

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: P334778

Luminaire Tested: **S123IW-S1320U930-4F0-1E-UDD**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P334778  
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-S1320U930-4F0-1E-UDD  
Description: DEFINE 3 INDIRECT LED LUMINAIRE, NO LENS  
WALL MOUNT, 1320 LUMENS PER FOOT  
Light Source: 3000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4304.5 lumens  
Efficiency: N/A  
Efficacy: 167.5 lumens/watt  
Spacing Criteria (0/90/45): - / - / -  
Luminous Opening: Rectangular (W 0.25' x L: 4' x H: 0')  
CIE Type: Indirect

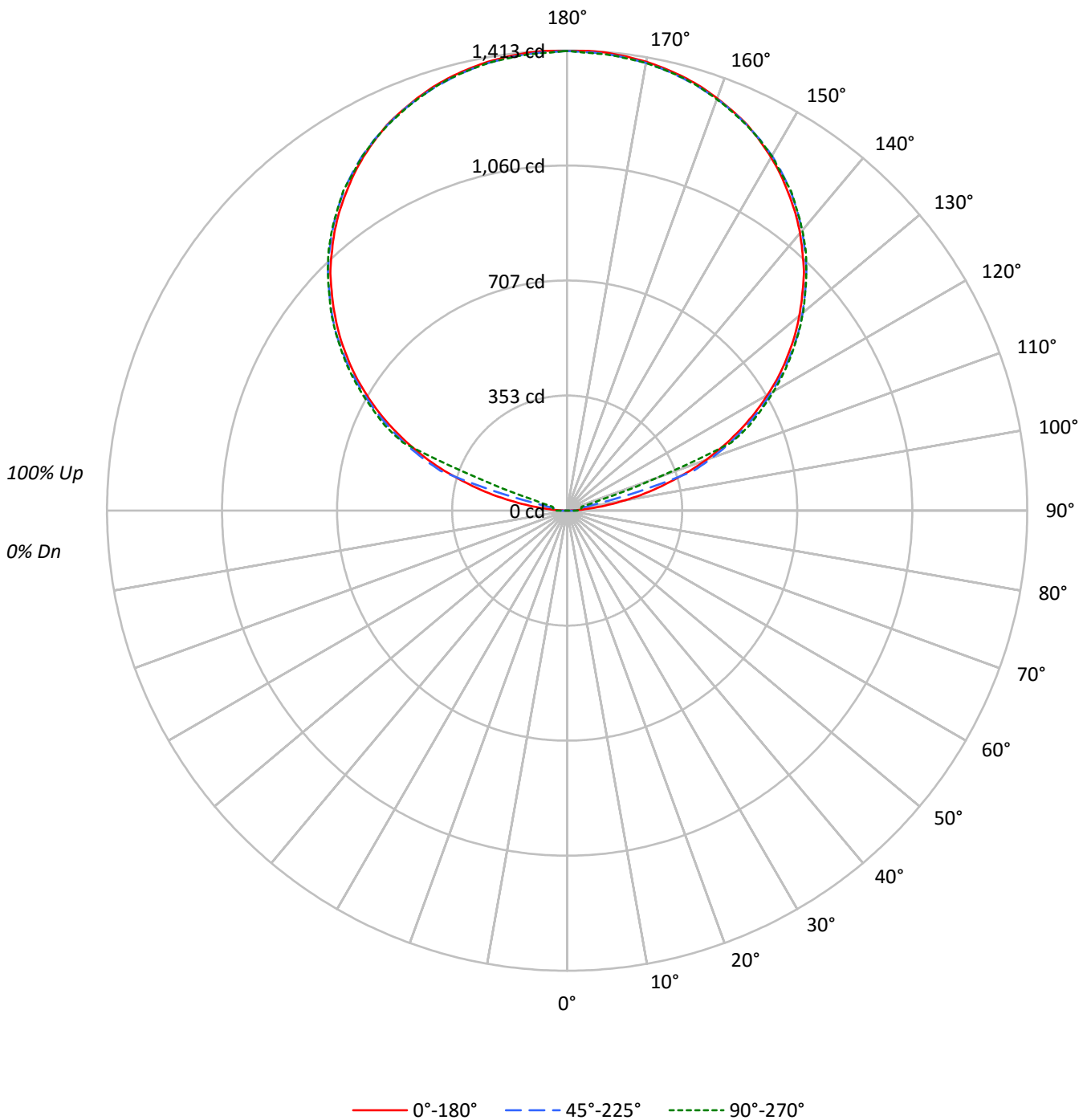
Input Watts (W): 25.7  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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



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**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°	2.8	0.1
90°-100°	49.8	1.2
100°-110°	240.6	5.6
110°-120°	589.5	13.7
120°-130°	748.4	17.4
130°-140°	799.5	18.6
140°-150°	747.6	17.4
150°-160°	603.0	14.0
160°-170°	389.2	9.0
170°-180°	134.1	3.1
0°-30°	0.0	0.0
0°-40°	0.0	0.0
0°-60°	0.0	0.0
0°-90°	2.8	0.1
90°-120°	879.9	20.4
90°-150°	3175.4	73.8
90°-180°	4302.0	99.9
0°-180°	4304.5	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	12	25	29	32	4
95°	64	21	32	40	40	76
105°	312	324	230	44	46	331
115°	586	592	602	612	616	579
125°	826	834	839	841	843	738
135°	1028	1035	1039	1042	1039	792
145°	1187	1194	1196	1198	1198	743
155°	1307	1305	1306	1312	1305	602
165°	1379	1375	1374	1383	1375	390
175°	1411	1406	1407	1414	1406	134
180°	1411	1411	1411	1411	1411	



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**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°	1.0	11.5	25.2	29.4	31.5
92.5°	24.1	17.8	27.3	34.6	35.6
95°	63.9	21.0	32.5	39.8	39.8
97.5°	116.4	87.0	33.5	41.9	43.0
100°	177.2	198.1	34.6	43.0	44.0
102.5°	246.4	260.0	77.6	43.0	45.1
105°	312.4	323.9	229.6	44.0	46.1
107.5°	382.6	392.1	407.8	246.4	109.0
110°	452.9	461.3	472.8	438.2	288.3



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	520.0	527.3	538.8	548.3	546.2
115°	586.0	592.3	601.7	612.2	616.4
117.5°	651.0	658.4	663.6	672.0	673.0
120°	710.8	720.2	723.4	731.7	731.7
122.5°	771.6	778.9	783.1	788.3	789.4
125°	826.1	834.5	838.7	840.8	842.9
127.5°	880.6	889.0	894.2	897.4	895.3
130°	930.9	939.3	943.5	947.7	945.6
132.5°	979.1	987.5	990.7	994.9	991.7
135°	1028.4	1034.7	1038.9	1042.0	1038.9
137.5°	1070.3	1078.7	1080.8	1086.1	1084.0
140°	1112.3	1118.6	1121.7	1125.9	1123.8
142.5°	1151.1	1157.4	1160.5	1163.7	1160.5
145°	1186.7	1194.1	1196.1	1198.2	1198.2
147.5°	1221.3	1226.6	1228.6	1230.7	1225.5
150°	1252.8	1255.9	1258.0	1260.1	1257.0
152.5°	1281.1	1282.1	1283.2	1287.4	1282.1
155°	1307.3	1305.2	1306.2	1311.5	1305.2
157.5°	1328.2	1328.2	1327.2	1333.5	1325.1
160°	1347.1	1346.1	1345.0	1351.3	1344.0
162.5°	1364.9	1361.8	1360.7	1368.1	1361.8
165°	1378.6	1375.4	1374.4	1382.8	1375.4
167.5°	1390.1	1385.9	1385.9	1394.3	1385.9
170°	1399.5	1395.3	1395.3	1403.7	1395.3
172.5°	1405.8	1400.6	1401.6	1410.0	1400.6
175°	1411.1	1405.8	1406.9	1414.2	1405.8
177.5°	1413.2	1407.9	1409.0	1417.3	1406.9
180°	1411.1	1411.1	1411.1	1411.1	1411.1

(END OF REPORT)