

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: P334718

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

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P334718  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-9)  
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-1  
Description: DEFINE 3 INDIRECT LED LUMINAIRE, FLUSH SATIN WHITE DIFFUSER  
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: 4082.5 lumens  
Efficiency: N/A  
Efficacy: 158.9 lumens/watt  
Spacing Criteria (0/90/45): - / - / -  
Luminous Opening: Rectangular (W 0.25' x L: 4' x H: 0')  
CIE Type: Indirect

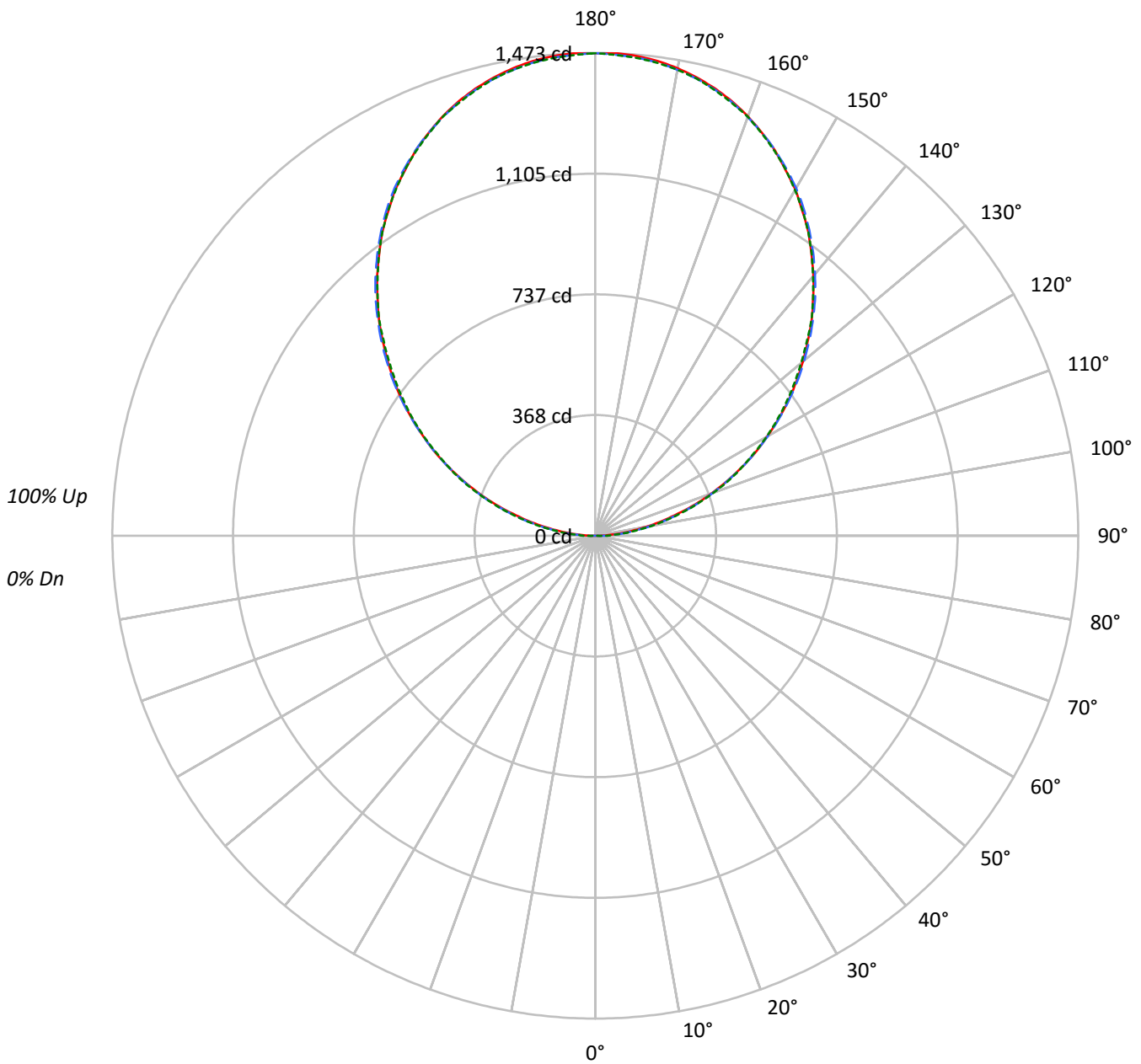
Input Watts (W): 25.7  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot



— 0°-180°    - - 45°-225°    - - - 90°-270°



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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°	3.1	0.1
90°-100°	94.8	2.3
100°-110°	286.8	7.0
110°-120°	488.3	12.0
120°-130°	642.4	15.7
130°-140°	722.1	17.7
140°-150°	709.9	17.4
150°-160°	597.7	14.6
160°-170°	397.9	9.7
170°-180°	139.3	3.4
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°	870.0	21.3
90°-150°	2944.4	72.1
90°-180°	4079.0	99.9
0°-180°	4082.5	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	13	28	32	35	5
95°	68	76	86	90	90	75
105°	260	262	273	273	275	279
115°	492	495	493	494	493	486
125°	719	723	720	716	711	642
135°	933	940	939	934	932	719
145°	1132	1135	1138	1137	1132	707
155°	1296	1296	1298	1302	1294	597
165°	1412	1409	1409	1416	1408	398
175°	1469	1464	1464	1471	1463	140
180°	1472	1472	1472	1472	1472	



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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°	1.2	12.7	27.8	32.4	34.7
92.5°	34.7	41.6	48.6	52.0	49.7
95°	68.2	76.3	85.6	90.2	90.2
97.5°	112.2	118.0	124.9	130.7	129.5
100°	157.3	164.2	170.0	173.5	175.8
102.5°	209.3	212.8	220.9	224.4	223.2
105°	260.2	262.5	272.9	272.9	275.3
107.5°	320.4	321.5	326.1	329.6	328.5
110°	375.9	378.2	380.5	385.1	382.8



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	433.7	434.9	434.9	440.6	440.6
115°	491.5	495.0	492.7	493.8	492.7
117.5°	550.5	551.7	549.4	549.4	545.9
120°	604.9	611.8	606.0	604.9	602.6
122.5°	661.5	666.2	663.8	660.4	656.9
125°	719.4	722.8	720.5	715.9	711.3
127.5°	772.6	779.5	777.2	770.2	765.6
130°	825.8	835.0	831.5	826.9	818.8
132.5°	879.0	888.2	885.9	880.1	874.3
135°	933.3	940.3	939.1	934.5	932.2
137.5°	983.0	988.8	992.3	986.5	983.0
140°	1035.1	1040.9	1042.0	1040.9	1032.8
142.5°	1082.5	1088.3	1090.6	1089.4	1083.7
145°	1132.2	1134.6	1138.0	1136.9	1132.2
147.5°	1175.0	1179.7	1183.1	1183.1	1176.2
150°	1220.1	1222.5	1224.8	1224.8	1217.8
152.5°	1257.1	1260.6	1261.8	1264.1	1258.3
155°	1296.5	1296.5	1297.6	1302.3	1294.2
157.5°	1330.0	1328.9	1330.0	1334.6	1327.7
160°	1361.2	1358.9	1358.9	1364.7	1360.1
162.5°	1389.0	1385.5	1386.7	1392.5	1384.4
165°	1412.1	1408.7	1408.7	1415.6	1407.5
167.5°	1431.8	1427.2	1428.3	1435.3	1428.3
170°	1448.0	1443.3	1443.3	1451.4	1443.3
172.5°	1460.7	1456.1	1456.1	1463.0	1454.9
175°	1468.8	1464.2	1464.2	1471.1	1463.0
177.5°	1473.4	1468.8	1468.8	1475.7	1467.6
180°	1472.3	1472.3	1472.3	1472.3	1472.3

(END OF REPORT)