

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: P334871

Luminaire Tested: **S124IW-S770U840-4F0-1E-UDD-1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P334871  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-10)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S124IW-S770U840-4F0-1E-UDD-1  
Description: DEFINE 4 INDIRECT LED LUMINAIRE, FLUSH SATIN WHITE DIFFUSER  
WALL MOUNT, 770 LUMENS PER FOOT  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2691.0 lumens  
Efficiency: N/A  
Efficacy: 192.2 lumens/watt  
Spacing Criteria (0/90/45): - / - / -  
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')  
CIE Type: Indirect

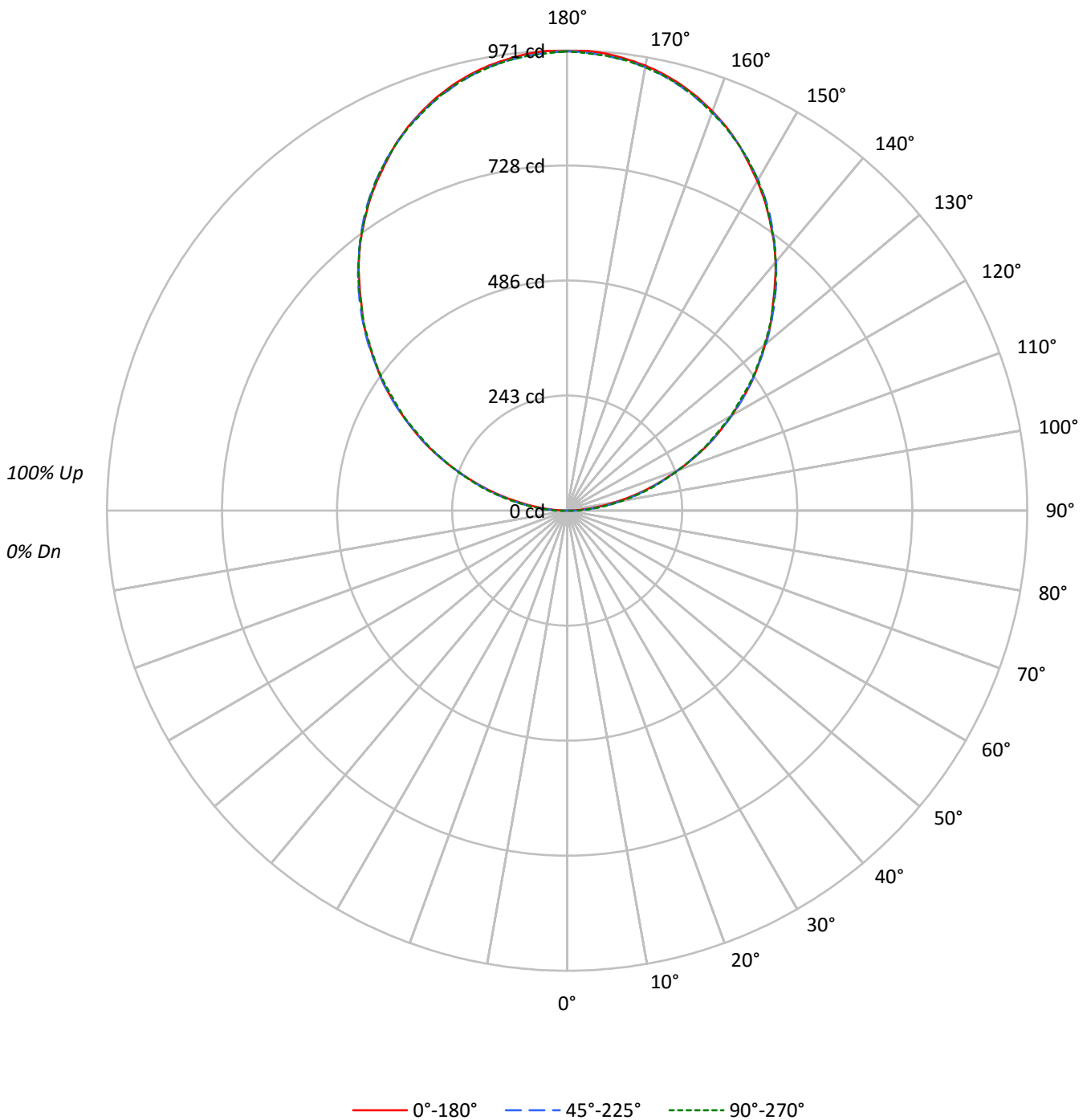
Input Watts (W): 14  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P334871

CATALOG NUMBER: S124IW-S770U840-4F0-1E-UDD-1

### Luminous Intensity Polar Plot





TEST NUMBER: P334871

CATALOG NUMBER: S124IW-S770U840-4F0-1E-UDD-1

**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: P334871

CATALOG NUMBER: S124IW-S770U840-4F0-1E-UDD-1

**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°	2.1	0.1
90°-100°	63.2	2.3
100°-110°	189.2	7.0
110°-120°	321.4	11.9
120°-130°	423.9	15.8
130°-140°	476.1	17.7
140°-150°	468.0	17.4
150°-160°	393.6	14.6
160°-170°	261.9	9.7
170°-180°	91.7	3.4
0°-30°	0.0	0.0
0°-40°	0.0	0.0
0°-60°	0.0	0.0
0°-90°	2.1	0.1
90°-120°	573.8	21.3
90°-150°	1941.8	72.2
90°-180°	2689.0	99.9
0°-180°	2691.0	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°	2	10	16	21	22	3
95°	45	52	57	59	59	49
105°	175	175	178	181	183	185
115°	327	327	325	324	324	322
125°	476	476	475	474	472	424
135°	614	618	618	617	615	475
145°	746	749	750	749	746	467
155°	854	854	854	857	854	393
165°	930	928	926	931	928	262
175°	968	964	963	968	963	92
180°	969	969	969	969	969	



TEST NUMBER: P334871

CATALOG NUMBER: S124IW-S770U840-4F0-1E-UDD-1

**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°	2.2	10.5	16.5	21.0	22.5
92.5°	19.5	29.2	33.0	35.2	36.0
95°	45.0	51.7	57.0	59.2	59.2
97.5°	72.0	77.9	83.9	86.9	86.9
100°	104.9	107.9	114.7	116.2	116.2
102.5°	139.4	140.2	146.2	148.4	149.2
105°	174.6	175.4	178.4	180.6	182.9
107.5°	211.4	212.1	212.9	215.9	215.1
110°	248.8	250.3	249.6	248.1	250.3



TEST NUMBER: P334871

CATALOG NUMBER: S124IW-S770U840-4F0-1E-UDD-1

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	287.8	287.8	286.3	286.3	286.3
115°	326.8	326.8	325.3	324.5	323.8
117.5°	363.5	363.5	362.8	360.5	358.3
120°	400.2	403.2	401.0	397.2	398.7
122.5°	438.5	439.2	438.5	436.2	432.5
125°	475.9	475.9	475.2	473.7	472.2
127.5°	509.7	511.9	510.4	508.9	508.2
130°	545.6	547.9	547.9	546.4	543.4
132.5°	582.4	583.9	583.1	581.6	580.9
135°	613.8	618.3	618.3	616.8	614.6
137.5°	649.1	651.3	652.8	650.6	651.3
140°	684.3	685.8	685.8	685.1	684.3
142.5°	716.5	718.0	717.3	717.3	717.3
145°	745.8	748.8	749.5	748.8	746.5
147.5°	775.7	779.5	778.7	778.0	777.2
150°	802.7	805.7	805.7	805.7	805.0
152.5°	828.2	829.7	830.5	832.7	830.5
155°	854.4	854.4	853.7	856.7	853.7
157.5°	876.9	875.4	875.4	877.7	875.4
160°	896.4	895.7	894.9	897.2	893.4
162.5°	914.4	912.2	911.4	915.9	912.2
165°	930.1	927.9	926.4	930.9	927.9
167.5°	942.9	939.9	939.9	944.4	939.9
170°	953.4	949.6	950.4	954.9	949.6
172.5°	960.9	957.9	957.9	963.1	957.9
175°	967.6	963.9	963.1	968.4	963.1
177.5°	970.6	966.9	966.9	972.1	966.1
180°	969.1	969.1	969.1	969.1	969.1

(END OF REPORT)