

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: P334897

Luminaire Tested: **S124IP-S810U830-4F0-1E-UDD**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P334897  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-6)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S124IP-S810U830-4F0-1E-UDD  
Description: DEFINE 4 INDIRECT LED LUMINAIRE, NO LENS  
PENDANT MOUNT, 810 LUMENS PER FOOT  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3050.9 lumens  
Efficiency: N/A  
Efficacy: 115.6 lumens/watt  
Spacing Criteria (0/90/45): - / - / -  
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')  
CIE Type: Indirect

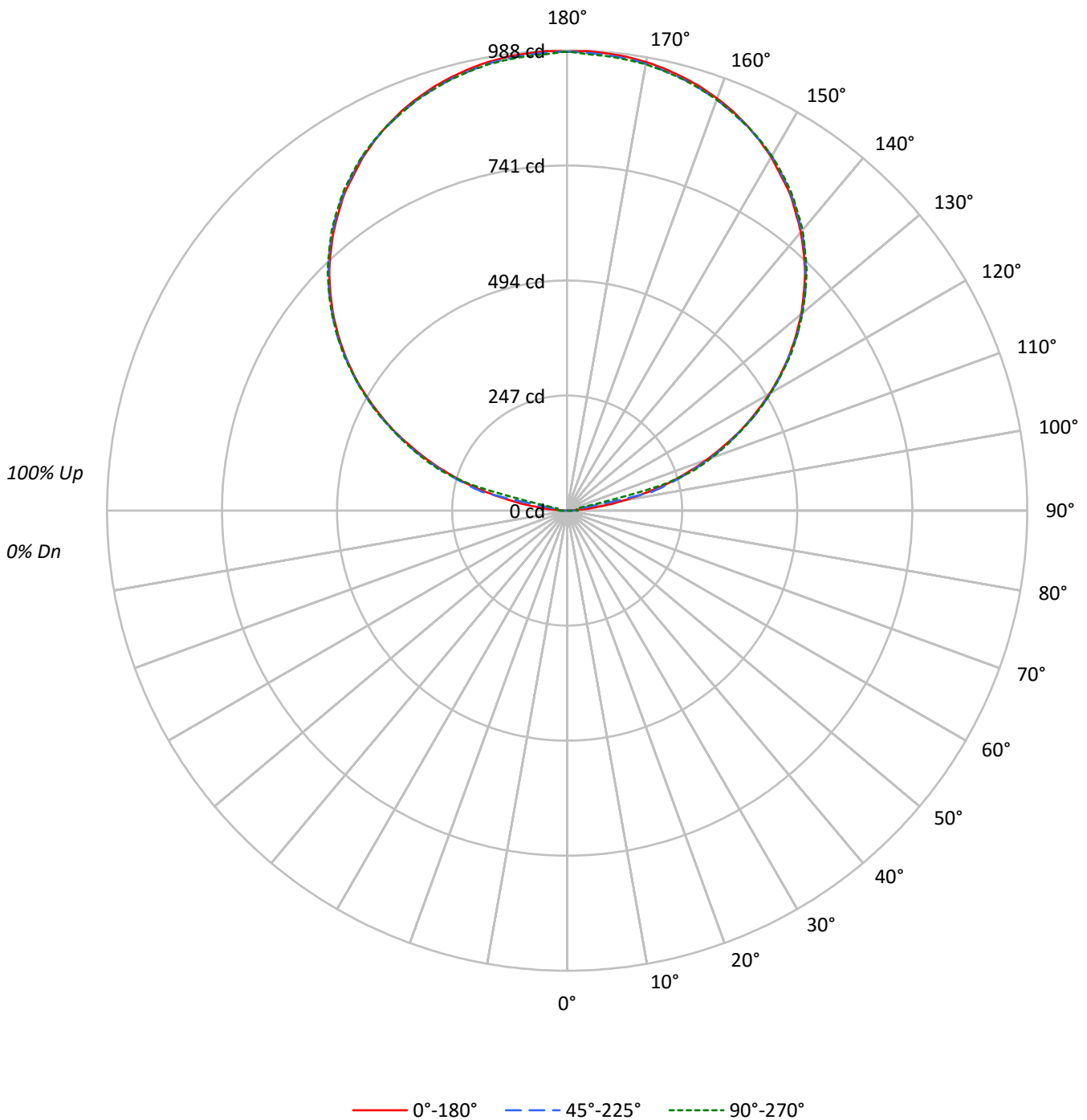
Input Watts (W): 26.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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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°	2.0	0.1
90°-100°	32.7	1.1
100°-110°	215.4	7.1
110°-120°	411.3	13.5
120°-130°	522.1	17.1
130°-140°	558.6	18.3
140°-150°	522.3	17.1
150°-160°	421.2	13.8
160°-170°	271.6	8.9
170°-180°	93.6	3.1
0°-30°	0.0	0.0
0°-40°	0.0	0.0
0°-60°	0.0	0.0
0°-90°	2.0	0.1
90°-120°	659.4	21.6
90°-150°	2262.5	74.2
90°-180°	3049.0	99.9
0°-180°	3050.9	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	2
95°	40	16	16	21	21	50
105°	222	226	230	237	210	232
115°	414	416	416	417	417	408
125°	582	585	584	586	587	520
135°	722	722	724	726	727	557
145°	833	835	835	836	837	520
155°	913	914	912	915	912	421
165°	963	960	960	965	959	272
175°	985	981	982	988	979	94
180°	985	985	985	985	985	



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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°	2.2	10.3	16.2	20.6	22.1
92.5°	11.1	9.6	15.5	19.9	19.9
95°	40.5	15.5	16.2	20.6	21.4
97.5°	77.4	93.6	16.2	19.9	20.6
100°	120.9	134.1	32.4	19.9	20.6
102.5°	169.5	178.3	187.2	21.4	21.4
105°	221.8	226.2	229.9	236.6	210.0
107.5°	269.7	271.9	277.1	280.8	283.7
110°	318.4	320.6	325.0	326.5	328.7



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	365.5	370.0	371.4	370.7	373.6
115°	414.2	416.4	415.6	417.1	417.1
117.5°	457.7	460.6	462.8	462.1	462.1
120°	501.9	504.8	504.1	505.6	504.1
122.5°	543.1	544.6	546.1	546.8	545.4
125°	582.2	585.2	583.7	585.9	586.6
127.5°	619.8	620.5	624.2	623.5	622.7
130°	655.9	656.6	658.8	659.6	659.6
132.5°	689.1	690.5	693.5	694.2	693.5
135°	722.2	721.5	724.4	725.9	727.4
137.5°	751.7	751.7	755.4	756.9	756.1
140°	780.4	781.9	783.4	785.6	786.3
142.5°	806.2	809.2	809.9	811.4	811.4
145°	832.8	835.0	835.0	835.7	837.2
147.5°	853.4	857.8	857.1	857.8	858.6
150°	876.3	879.2	878.5	878.5	879.2
152.5°	895.4	897.6	896.1	897.6	896.9
155°	913.1	913.8	911.6	914.6	912.4
157.5°	928.6	928.6	925.6	929.3	925.6
160°	941.8	939.6	938.9	943.3	938.9
162.5°	953.6	950.7	949.9	954.4	949.2
165°	963.2	959.5	959.5	965.4	958.8
167.5°	971.3	967.6	966.9	973.5	966.2
170°	978.0	973.5	974.3	980.2	972.8
172.5°	982.4	978.0	978.7	984.6	976.5
175°	985.3	980.9	981.6	988.3	979.4
177.5°	987.5	982.4	983.8	989.7	980.9
180°	985.3	985.3	985.3	985.3	985.3

(END OF REPORT)