

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: P334870

Luminaire Tested: **S124IW-S470U840-4F0-1E-UDD-1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P334870  
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-S470U840-4F0-1E-UDD-1  
Description: DEFINE 4 INDIRECT LED LUMINAIRE, FLUSH SATIN WHITE DIFFUSER  
WALL MOUNT, 470 LUMENS PER FOOT  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1643.0 lumens  
Efficiency: N/A  
Efficacy: 188.8 lumens/watt  
Spacing Criteria (0/90/45): - / - / -  
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')  
CIE Type: Indirect

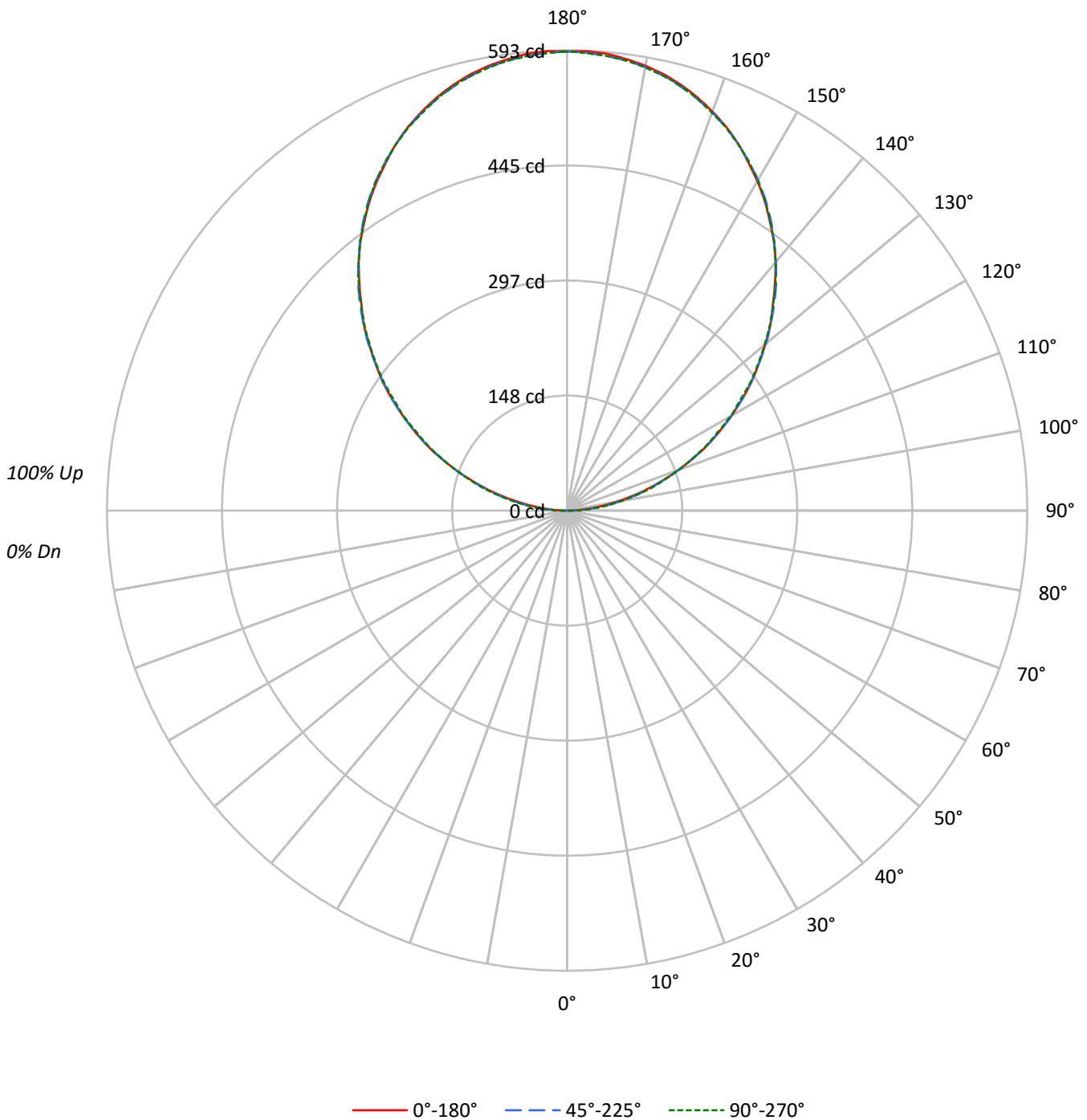
Input Watts (W): 8.7  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	1.3	0.1
90°-100°	38.6	2.3
100°-110°	115.5	7.0
110°-120°	196.2	11.9
120°-130°	258.8	15.8
130°-140°	290.7	17.7
140°-150°	285.7	17.4
150°-160°	240.3	14.6
160°-170°	159.9	9.7
170°-180°	56.0	3.4
0°-30°	0.0	0.0
0°-40°	0.0	0.0
0°-60°	0.0	0.0
0°-90°	1.3	0.1
90°-120°	350.3	21.3
90°-150°	1185.5	72.2
90°-180°	1642.0	99.9
0°-180°	1643.0	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	6	10	13	14	2
95°	28	32	35	36	36	30
105°	107	107	109	110	112	113
115°	200	200	199	198	198	197
125°	291	291	290	289	288	259
135°	375	378	378	377	375	290
145°	455	457	458	457	456	285
155°	522	522	521	523	521	240
165°	568	566	566	568	566	160
175°	591	588	588	591	588	56
180°	592	592	592	592	592	



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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°	1.4	6.4	10.1	12.8	13.7
92.5°	11.9	17.8	20.1	21.5	22.0
95°	27.5	31.6	34.8	36.2	36.2
97.5°	43.9	47.6	51.3	53.1	53.1
100°	64.1	65.9	70.0	70.9	70.9
102.5°	85.1	85.6	89.2	90.6	91.1
105°	106.6	107.1	108.9	110.3	111.7
107.5°	129.0	129.5	130.0	131.8	131.3
110°	151.9	152.8	152.4	151.5	152.8



TEST NUMBER: P334870

CATALOG NUMBER: S124IW-S470U840-4F0-1E-UDD-1

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	175.7	175.7	174.8	174.8	174.8
115°	199.5	199.5	198.6	198.1	197.7
117.5°	221.9	221.9	221.5	220.1	218.7
120°	244.4	246.2	244.8	242.5	243.4
122.5°	267.7	268.2	267.7	266.3	264.0
125°	290.6	290.6	290.1	289.2	288.3
127.5°	311.2	312.5	311.6	310.7	310.3
130°	333.1	334.5	334.5	333.6	331.8
132.5°	355.6	356.5	356.0	355.1	354.6
135°	374.8	377.5	377.5	376.6	375.2
137.5°	396.3	397.7	398.6	397.2	397.7
140°	417.8	418.7	418.7	418.3	417.8
142.5°	437.5	438.4	437.9	437.9	437.9
145°	455.3	457.2	457.6	457.2	455.8
147.5°	473.6	475.9	475.5	475.0	474.5
150°	490.1	491.9	491.9	491.9	491.5
152.5°	505.7	506.6	507.0	508.4	507.0
155°	521.7	521.7	521.2	523.0	521.2
157.5°	535.4	534.5	534.5	535.9	534.5
160°	547.3	546.8	546.4	547.8	545.5
162.5°	558.3	556.9	556.5	559.2	556.9
165°	567.9	566.5	565.6	568.4	566.5
167.5°	575.7	573.8	573.8	576.6	573.8
170°	582.1	579.8	580.3	583.0	579.8
172.5°	586.7	584.8	584.8	588.0	584.8
175°	590.8	588.5	588.0	591.2	588.0
177.5°	592.6	590.3	590.3	593.5	589.9
180°	591.7	591.7	591.7	591.7	591.7

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