

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: P334831

Luminaire Tested: **S124IP-S590U835-4F0-1E-UDD-1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P334831  
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: S124IP-S590U835-4F0-1E-UDD-1  
Description: DEFINE 4 INDIRECT LED LUMINAIRE, FLUSH SATIN WHITE DIFFUSER  
PENDANT MOUNT, 590 LUMENS PER FOOT  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

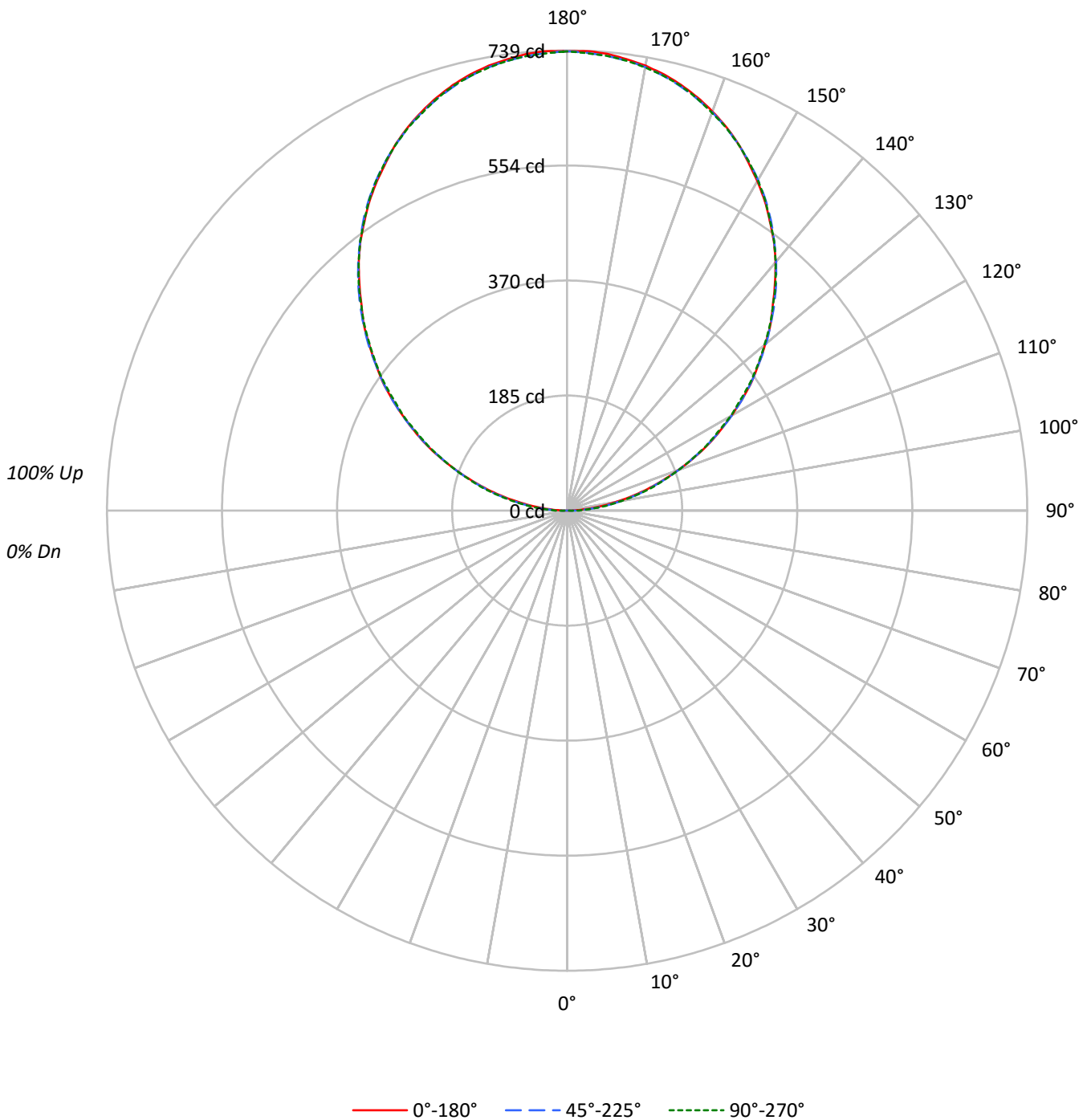
Lumens per Lamp: N/A  
Luminaire Lumens: 2047.8 lumens  
Efficiency: N/A  
Efficacy: 108.9 lumens/watt  
Spacing Criteria (0/90/45): - / - / -  
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')  
CIE Type: Indirect

Input Watts (W): 18.8  
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



TEST NUMBER: P334831  
CATALOG NUMBER: S124IP-S590U835-4F0-1E-UDD-1

### Luminous Intensity Polar Plot





TEST NUMBER: P334831

CATALOG NUMBER: S124IP-S590U835-4F0-1E-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: P334831  
 CATALOG NUMBER: S124IP-S590U835-4F0-1E-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°	1.6	0.1
90°-100°	48.1	2.3
100°-110°	144.0	7.0
110°-120°	244.6	11.9
120°-130°	322.6	15.8
130°-140°	362.3	17.7
140°-150°	356.1	17.4
150°-160°	299.5	14.6
160°-170°	199.3	9.7
170°-180°	69.8	3.4
0°-30°	0.0	0.0
0°-40°	0.0	0.0
0°-60°	0.0	0.0
0°-90°	1.6	0.1
90°-120°	436.7	21.3
90°-150°	1477.6	72.2
90°-180°	2046.0	99.9
0°-180°	2047.8	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	8	12	16	17	2
95°	34	39	43	45	45	37
105°	133	134	136	138	139	141
115°	249	249	248	247	246	245
125°	362	362	362	360	359	323
135°	467	470	470	469	468	361
145°	568	570	570	570	568	355
155°	650	650	650	652	650	299
165°	708	706	705	708	706	200
175°	736	734	733	737	733	70
180°	738	738	738	738	738	



TEST NUMBER: P334831

CATALOG NUMBER: S124IP-S590U835-4F0-1E-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°	1.7	8.0	12.5	16.0	17.1
92.5°	14.8	22.2	25.1	26.8	27.4
95°	34.2	39.4	43.3	45.1	45.1
97.5°	54.8	59.3	63.9	66.2	66.2
100°	79.8	82.1	87.3	88.4	88.4
102.5°	106.1	106.7	111.2	112.9	113.5
105°	132.9	133.5	135.7	137.5	139.2
107.5°	160.8	161.4	162.0	164.3	163.7
110°	189.4	190.5	189.9	188.8	190.5



TEST NUMBER: P334831

CATALOG NUMBER: S124IP-S590U835-4F0-1E-UDD-1

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	219.0	219.0	217.9	217.9	217.9
115°	248.7	248.7	247.5	247.0	246.4
117.5°	276.6	276.6	276.0	274.3	272.6
120°	304.6	306.8	305.1	302.3	303.4
122.5°	333.7	334.2	333.7	331.9	329.1
125°	362.2	362.2	361.6	360.5	359.3
127.5°	387.8	389.5	388.4	387.3	386.7
130°	415.2	416.9	416.9	415.8	413.5
132.5°	443.2	444.3	443.7	442.6	442.0
135°	467.1	470.5	470.5	469.4	467.7
137.5°	493.9	495.6	496.8	495.1	495.6
140°	520.7	521.9	521.9	521.3	520.7
142.5°	545.3	546.4	545.8	545.8	545.8
145°	567.5	569.8	570.3	569.8	568.1
147.5°	590.3	593.2	592.6	592.0	591.5
150°	610.8	613.1	613.1	613.1	612.6
152.5°	630.2	631.4	631.9	633.7	631.9
155°	650.2	650.2	649.6	651.9	649.6
157.5°	667.3	666.2	666.2	667.9	666.2
160°	682.1	681.6	681.0	682.7	679.9
162.5°	695.8	694.1	693.5	697.0	694.1
165°	707.8	706.1	705.0	708.4	706.1
167.5°	717.5	715.2	715.2	718.6	715.2
170°	725.5	722.6	723.2	726.6	722.6
172.5°	731.2	728.9	728.9	732.9	728.9
175°	736.3	733.5	732.9	736.9	732.9
177.5°	738.6	735.8	735.8	739.7	735.2
180°	737.5	737.5	737.5	737.5	737.5

(END OF REPORT)