

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: P334155

Luminaire Tested: **S124DS-S350D940-4F0-1E-UDD-D**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P334155  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-16)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S124DS-S350D940-4F0-1E-UDD-D  
Description: DEFINE 4 DIRECT LED LUMINAIRE, DROP SATIN WHITE DIFFUSER  
PENDANT/SURFACE/WALL MOUNT, 350 LUMENS PER FOOT  
Light Source: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

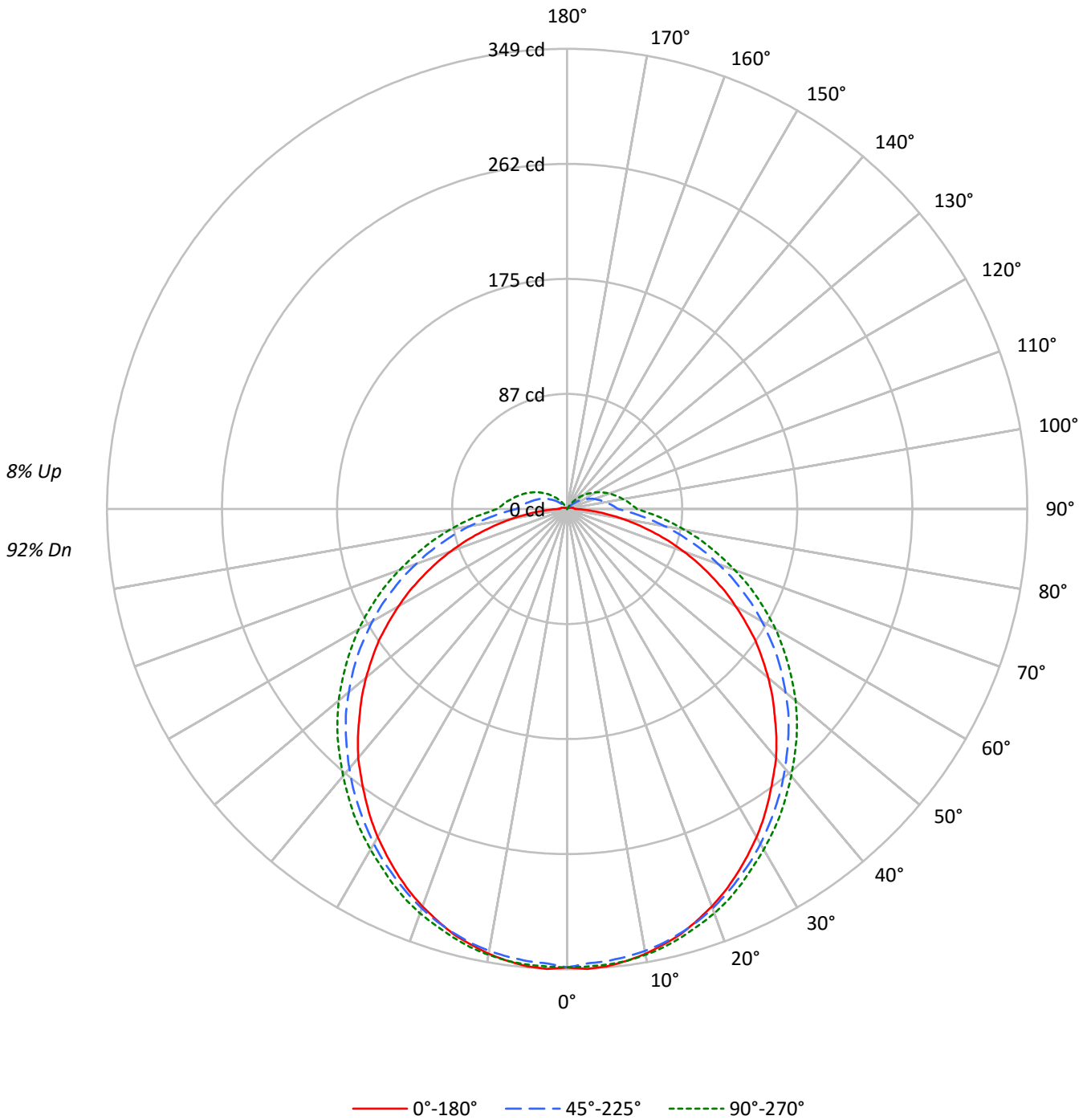
Lumens per Lamp: N/A  
Luminaire Lumens: 1185.4 lumens  
Efficiency: N/A  
Efficacy: 102.2 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.39  
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 11.6  
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	117	117	117	117	114	114	114	114	107	107	107	101	101	101	95	95	95	92
1	105	100	95	91	102	97	93	89	91	88	84	86	83	80	81	79	77	74
2	95	86	79	73	92	84	77	71	79	73	68	74	70	66	70	67	63	60
3	87	75	67	60	83	73	65	59	69	62	57	65	60	55	62	57	53	50
4	79	66	57	50	76	65	56	49	61	54	48	58	52	47	55	49	45	43
5	73	59	50	43	70	58	49	42	55	47	41	52	45	40	49	44	39	37
6	67	53	44	37	64	52	43	37	49	42	36	47	40	35	45	39	34	32
7	62	48	39	33	60	47	38	32	45	37	32	43	36	31	41	35	30	28
8	58	44	35	29	56	43	35	29	41	33	28	39	32	28	37	31	27	25
9	54	40	32	26	52	39	31	26	38	30	25	36	29	25	34	29	24	22
10	50	37	29	24	49	36	29	23	35	28	23	33	27	23	32	26	22	20

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	2807	2807	2807
5°	2821	2789	2811
10°	2808	2790	2815
15°	2789	2782	2808
20°	2756	2770	2803
25°	2719	2750	2792
30°	2678	2733	2780
35°	2632	2717	2782
40°	2598	2708	2786
45°	2543	2712	2810
50°	2499	2714	2841
55°	2455	2735	2877
60°	2383	2753	2948
65°	2306	2797	3041
70°	2214	2877	3189
75°	2090	3047	3497
80°	1971	3491	4179
85°	1908	5048	6493



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	32.9	2.8
10°-20°	94.4	8.0
20°-30°	142.7	12.0
30°-40°	172.7	14.6
40°-50°	182.5	15.4
50°-60°	171.8	14.5
60°-70°	142.6	12.0
70°-80°	100.0	8.4
80°-90°	56.4	4.8
90°-100°	33.6	2.8
100°-110°	24.9	2.1
110°-120°	16.7	1.4
120°-130°	9.4	0.8
130°-140°	4.1	0.3
140°-150°	0.8	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	270.0	22.8
0°-40°	442.7	37.3
0°-60°	797.0	67.2
0°-90°	1096.0	92.5
90°-120°	75.1	6.3
90°-150°	89.4	7.5
90°-180°	89.0	7.5
0°-180°	1185.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	348	348	348	348	348	
5°	348	347	344	347	347	33
15°	334	334	333	336	336	94
25°	305	308	309	313	313	141
35°	267	272	276	281	282	167
45°	223	230	238	244	246	172
55°	174	183	194	202	204	155
65°	121	133	146	156	159	120
75°	67	81	98	109	112	71
85°	21	37	54	66	70	21
90°	6	22	38	50	53	4
95°	5	18	34	44	48	4
105°	4	11	26	35	38	4
115°	2	6	18	27	30	2
125°	2	1	11	18	21	1
135°	1	1	4	10	12	1
145°	0	0	0	2	4	0
155°	0	0	0	0	0	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



TEST NUMBER: P334155

CATALOG NUMBER: S124DS-S350D940-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	347.7	347.7	347.7	347.7	347.7
2.5°	349.2	348.1	345.0	347.7	347.3
5°	348.1	346.9	344.2	347.3	346.9
7.5°	345.7	345.0	342.6	346.1	345.7
10°	342.6	342.2	340.3	343.8	343.4
12.5°	338.3	338.3	337.2	340.3	340.3
15°	333.7	334.1	332.9	336.4	336.0
17.5°	327.4	328.6	328.2	331.7	331.3
20°	320.8	322.0	322.4	326.3	326.3
22.5°	313.4	315.0	315.8	319.6	320.4
25°	305.2	307.6	308.7	313.0	313.4
27.5°	296.3	299.8	301.4	305.2	305.6
30°	287.3	290.4	293.2	297.5	298.2
32.5°	277.6	281.5	284.6	289.7	290.4
35°	267.1	271.8	275.7	281.1	282.3
37.5°	256.6	262.0	266.7	272.1	273.3
40°	246.5	251.5	257.0	262.8	264.4
42.5°	234.8	240.6	247.2	253.9	255.0
45°	222.7	230.1	237.5	244.1	246.1
47.5°	211.4	218.8	227.4	234.0	236.3
50°	199.0	207.5	216.1	223.9	226.2
52.5°	186.5	195.1	205.2	213.0	215.3
55°	174.4	182.6	194.3	202.1	204.4
57.5°	160.8	170.9	182.2	191.6	193.5
60°	147.6	157.7	170.5	179.5	182.6
62.5°	134.7	146.0	158.9	167.8	170.9
65°	120.7	133.2	146.4	156.1	159.2
67.5°	107.5	120.7	134.7	144.4	147.6
70°	93.8	107.1	121.9	132.4	135.1
72.5°	80.6	94.2	110.2	120.3	123.4
75°	67.0	81.4	97.7	108.6	112.1
77.5°	54.1	69.3	86.4	97.3	101.2
80°	42.4	58.0	75.1	86.8	89.9
82.5°	30.8	47.1	64.2	76.3	79.8
85°	20.6	37.0	54.5	66.2	70.1
87.5°	12.8	28.8	45.9	57.2	60.7
90°	6.2	21.8	38.5	49.8	53.0
92.5°	5.8	19.5	36.2	47.1	50.2
95°	5.1	17.9	33.9	44.4	47.9
97.5°	4.7	16.0	31.9	42.0	45.6
100°	4.3	14.4	29.6	40.1	42.8
102.5°	4.3	12.8	27.6	37.8	40.9
105°	3.5	11.3	25.7	35.4	38.5
107.5°	3.5	10.1	23.7	33.5	36.2
110°	3.1	8.6	22.2	31.1	34.3



TEST NUMBER: P334155

CATALOG NUMBER: S124DS-S350D940-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	2.7	7.4	20.2	28.8	31.9
115°	2.3	5.8	18.3	26.9	29.6
117.5°	2.3	4.7	16.4	24.5	27.6
120°	1.9	3.1	14.4	22.2	25.3
122.5°	1.9	1.9	12.5	20.2	23.0
125°	1.6	1.2	10.9	18.3	20.6
127.5°	1.6	1.2	9.0	16.0	18.7
130°	1.2	0.8	7.0	14.0	16.4
132.5°	1.2	0.8	5.5	12.1	14.4
135°	0.8	0.8	3.5	9.7	12.1
137.5°	0.8	0.4	1.9	7.8	9.7
140°	0.8	0.4	0.8	5.8	7.8
142.5°	0.4	0.4	0.0	4.3	5.8
145°	0.4	0.0	0.0	2.3	3.9
147.5°	0.4	0.0	0.0	0.4	1.9
150°	0.4	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)