

Scaled data based on original data using  
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1059022

Luminaire Tested: S123RDR-S1000D840-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1059022  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-30)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123RDR-S1000D840-X4F0-XX-UDD-BVL-B  
Description: DEFINE 3 BLACK REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: -

**Summary**

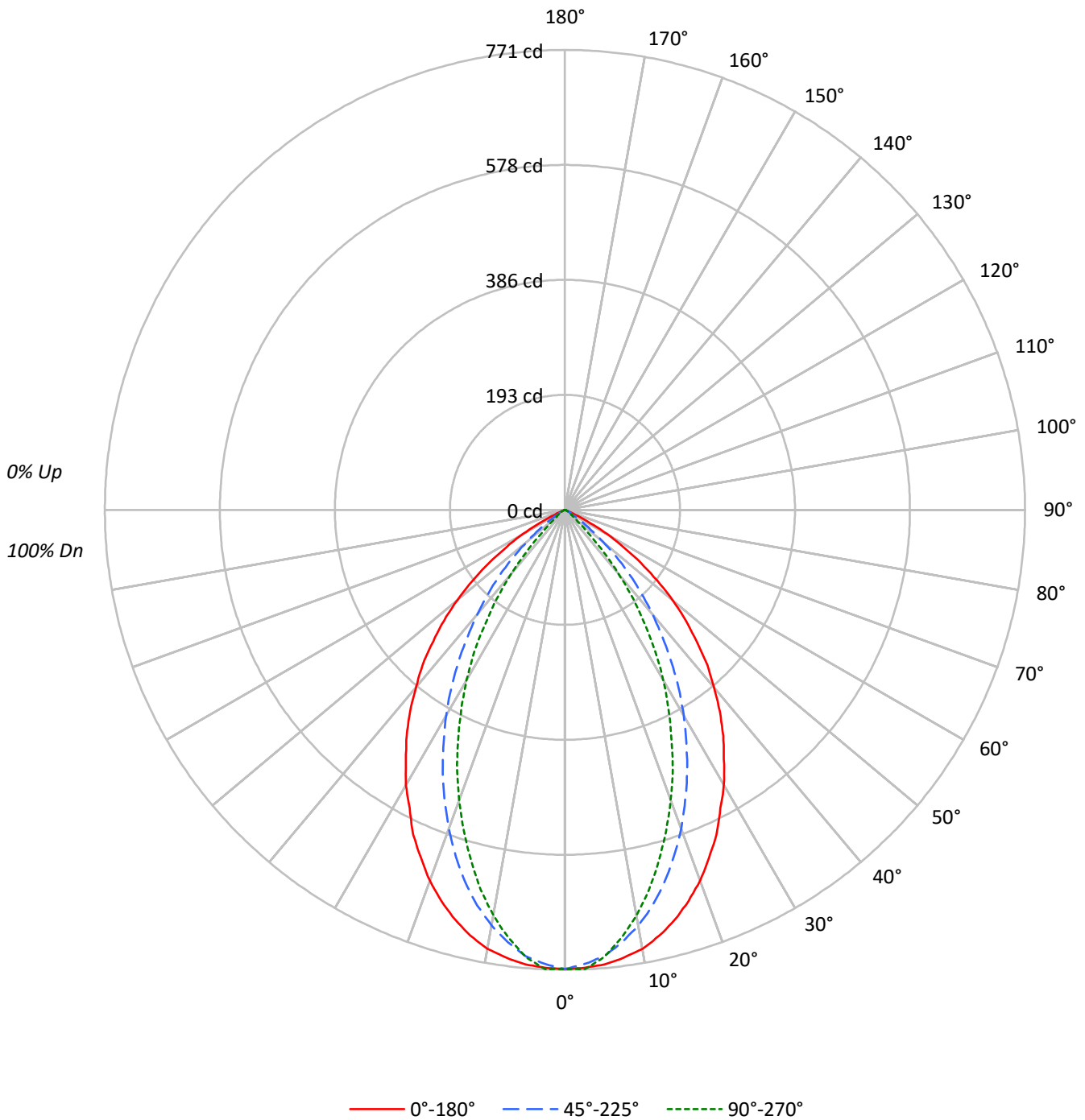
Lumens per Lamp: N/A  
Luminaire Lumens: 878.2 lumens  
Efficiency: N/A  
Efficacy: 25.1 lumens/watt  
Spacing Criteria (0/90/45): 1.06 / 0.81 / 0.94  
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 35  
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: 24 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	50	30	10	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				100
1	113	110	107	104	110	107	105	103	103	101	100	100	98	97	96	95	94	92				92
2	106	101	96	92	104	99	95	91	96	92	89	93	90	87	90	87	85	84				84
3	100	92	87	82	98	91	86	82	88	84	80	86	82	79	83	80	78	76				76
4	94	85	79	74	92	84	78	74	82	77	73	80	75	72	78	74	71	69				69
5	88	79	72	67	86	78	71	67	76	70	66	74	69	65	72	68	65	63				63
6	83	73	66	61	81	72	66	61	70	65	60	69	64	60	67	63	60	58				58
7	78	68	61	56	77	67	60	56	66	60	56	64	59	55	63	58	55	53				53
8	74	63	56	52	72	62	56	51	61	55	51	60	55	51	59	54	51	49				49
9	70	59	52	48	68	58	52	48	57	52	47	56	51	47	55	51	47	46				46
10	66	55	49	44	65	55	48	44	54	48	44	53	48	44	52	47	44	42				42

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

	0°	45°	90°
0°	9037	9037	9037
5°	9014	8852	8868
10°	8910	8438	8231
15°	8648	7850	7397
20°	8270	7109	6473
25°	7788	6279	5475
30°	7226	5394	4470
35°	6627	4460	3323
40°	5946	3495	2128
45°	5186	2552	885
50°	4302	1516	340
55°	3171	635	254
60°	1921	233	146
65°	517	139	69
70°	0	41	41
75°	0	0	54
80°	0	0	0
85°	0	0	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 5186 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	70.9	8.1
10°-20°	182.8	20.8
20°-30°	227.9	25.9
30°-40°	203.8	23.2
40°-50°	128.6	14.6
50°-60°	53.8	6.1
60°-70°	10.1	1.2
70°-80°	0.3	0.0
80°-90°	0.0	0.0
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	481.6	54.8
0°-40°	685.4	78.0
0°-60°	867.8	98.8
0°-90°	878.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	878.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	770	770	770	770	770	
5°	765	763	751	754	752	72
15°	711	694	646	618	608	200
25°	601	553	485	442	423	275
35°	462	395	311	255	232	288
45°	312	243	154	82	53	241
55°	155	107	31	12	12	139
65°	19	14	5	2	2	26
75°	0	0	0	0	1	0
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	769.6	769.6	769.6	769.6	769.6
2.5°	768.4	769.6	762.2	769.6	770.9
5°	764.7	763.4	751.0	753.5	752.3
7.5°	757.2	753.5	731.2	726.3	723.8
10°	747.3	737.4	707.7	695.3	690.3
12.5°	731.2	717.6	679.2	659.3	651.9
15°	711.4	694.0	645.7	618.4	608.5
17.5°	687.8	663.1	608.5	578.8	563.9
20°	661.8	627.1	568.9	532.9	518.0
22.5°	630.8	592.4	526.7	488.3	472.2
25°	601.1	552.8	484.6	442.4	422.6
27.5°	563.9	513.1	440.0	396.6	375.5
30°	532.9	474.7	397.8	349.5	329.7
32.5°	495.7	435.0	354.5	301.2	282.6
35°	462.3	395.4	311.1	255.3	231.8
37.5°	426.3	356.9	267.7	209.5	187.1
40°	387.9	318.5	228.0	163.6	138.8
42.5°	353.2	280.1	188.4	121.5	96.7
45°	312.3	242.9	153.7	81.8	53.3
47.5°	275.1	208.2	116.5	45.9	28.5
50°	235.5	172.3	83.0	23.5	18.6
52.5°	194.6	137.6	54.5	16.1	14.9
55°	154.9	106.6	31.0	12.4	12.4
57.5°	116.5	76.8	16.1	9.9	8.7
60°	81.8	50.8	9.9	7.4	6.2
62.5°	47.1	29.7	7.4	5.0	5.0
65°	18.6	13.6	5.0	2.5	2.5
67.5°	1.2	3.7	2.5	1.2	1.2
70°	0.0	0.0	1.2	1.2	1.2
72.5°	0.0	0.0	1.2	1.2	1.2
75°	0.0	0.0	0.0	0.0	1.2
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°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)