

Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



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: P1059612

Luminaire Tested: S123RDR-H340D927-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1059612  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-65)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123RDR-H340D927-X4F0-XX-UDD-SVL-W  
Description: DEFINE 3 WHITE REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 2700K CCT, 90 CRI LEDS  
Ballast/Driver: -

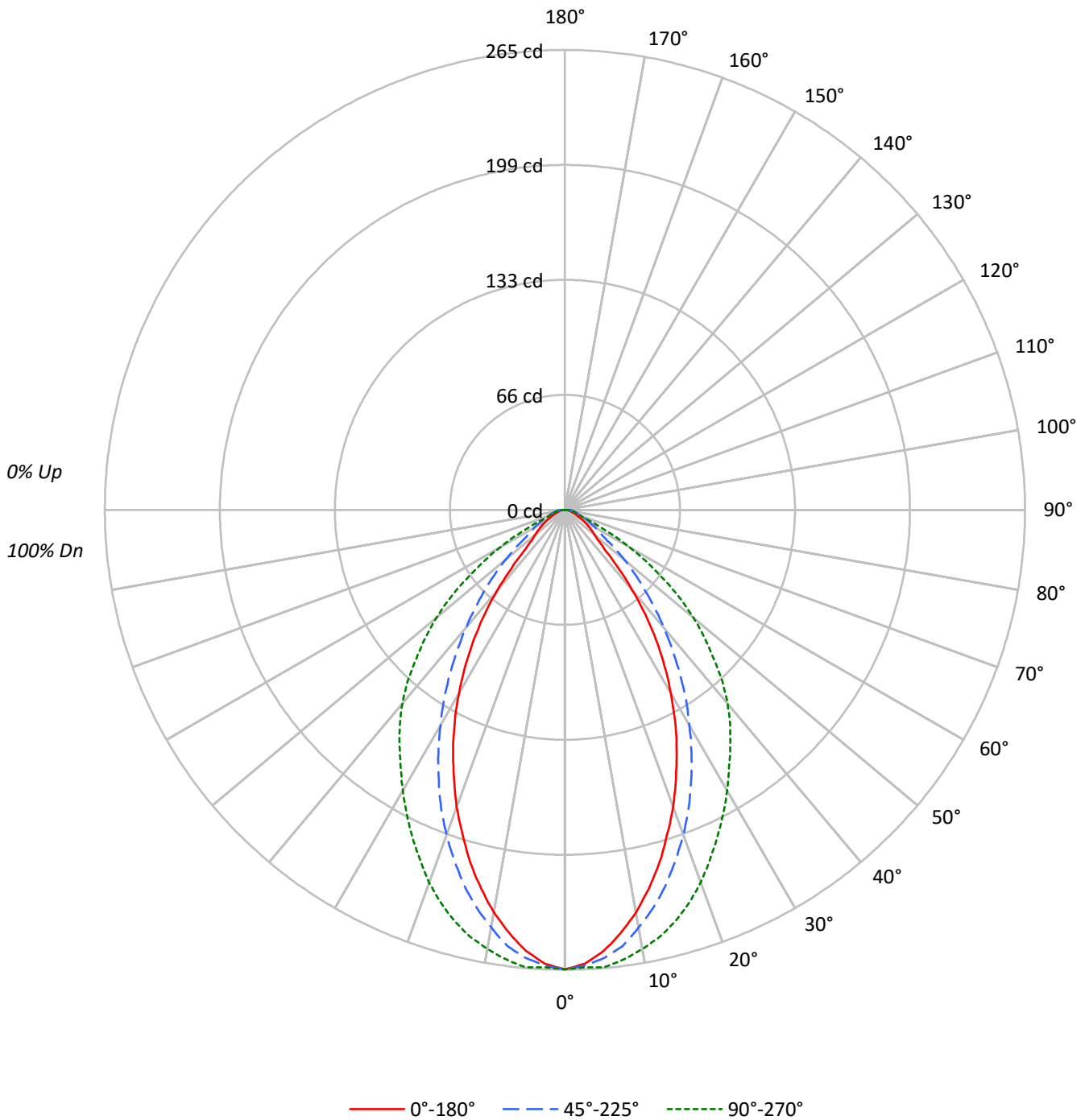
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 355.5 lumens  
Efficiency: N/A  
Efficacy: 30.4 lumens/watt  
Spacing Criteria (0/90/45): 0.83 / 1.08 / 0.98  
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 11.7  
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	111	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	91	89			89	
2	104	98	92	88	102	96	91	87	92	88	85	89	86	83	86	84	81	79			79	
3	97	89	82	77	95	87	81	77	84	79	75	82	78	74	79	76	73	71			71	
4	90	81	74	68	88	80	73	68	77	72	67	75	70	66	73	69	66	64			64	
5	85	74	67	61	83	73	66	61	71	65	60	69	64	60	68	63	59	58			58	
6	79	68	61	55	78	67	60	55	66	59	55	64	59	54	63	58	54	52			52	
7	74	63	56	51	73	62	55	50	61	55	50	60	54	50	58	53	49	48			48	
8	70	58	51	46	69	58	51	46	57	50	46	55	50	46	54	49	45	44			44	
9	66	54	47	43	65	54	47	43	53	47	42	52	46	42	51	46	42	40			40	
10	62	51	44	39	61	50	44	39	49	43	39	49	43	39	48	43	39	37			37	

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

	0°	45°	90°
0°	3109	3109	3109
5°	3009	3055	3118
10°	2808	2914	3063
15°	2559	2723	2983
20°	2277	2490	2857
25°	1973	2228	2694
30°	1654	1944	2533
35°	1310	1656	2381
40°	927	1361	2233
45°	546	1076	2009
50°	409	817	1761
55°	344	553	1415
60°	277	472	1005
65°	220	403	531
70°	192	350	326
75°	177	327	313
80°	176	358	311
85°	216	525	404

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 2009 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	24.4	6.9
10°-20°	63.3	17.8
20°-30°	80.7	22.7
30°-40°	75.9	21.3
40°-50°	54.6	15.4
50°-60°	31.6	8.9
60°-70°	14.4	4.1
70°-80°	7.2	2.0
80°-90°	3.4	1.0
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°	168.4	47.4
0°-40°	244.2	68.7
0°-60°	330.4	93.0
0°-90°	355.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	355.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	265	265	265	265	265	
5°	255	260	259	262	264	24
15°	210	218	224	236	245	59
25°	152	160	172	191	208	70
35°	91	99	116	142	166	57
45°	33	41	65	97	121	28
55°	17	17	27	51	69	15
65°	8	11	14	16	19	8
75°	4	8	7	7	7	4
85°	2	4	4	4	3	2
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	264.8	264.8	264.8	264.8	264.8
2.5°	261.8	265.1	262.8	263.1	263.8
5°	255.3	259.5	259.2	261.8	264.5
7.5°	246.0	251.0	253.6	257.6	261.2
10°	235.5	241.1	244.4	251.6	256.9
12.5°	223.3	230.6	234.9	244.4	252.0
15°	210.5	218.1	224.0	236.5	245.4
17.5°	196.0	204.3	211.8	226.6	237.5
20°	182.2	190.1	199.3	215.5	228.6
22.5°	167.1	175.7	186.2	203.3	218.1
25°	152.3	160.2	172.0	191.1	207.9
27.5°	137.5	145.4	157.9	178.9	197.4
30°	122.0	130.3	143.4	166.8	186.8
32.5°	106.9	114.8	129.6	154.9	176.0
35°	91.4	99.3	115.5	142.1	166.1
37.5°	76.3	84.5	101.6	131.6	156.2
40°	60.5	69.4	88.8	120.7	145.7
42.5°	45.7	55.3	76.0	109.5	134.2
45°	32.9	41.1	64.8	97.4	121.0
47.5°	25.7	29.9	54.6	84.9	108.9
50°	22.4	23.0	44.7	73.4	96.4
52.5°	19.4	20.1	35.2	62.5	83.2
55°	16.8	17.4	27.0	51.3	69.1
57.5°	14.1	15.1	22.4	40.8	55.6
60°	11.8	13.2	20.1	31.2	42.8
62.5°	9.5	11.8	17.1	23.0	30.6
65°	7.9	11.2	14.5	16.1	19.1
67.5°	6.6	10.2	12.2	11.5	11.2
70°	5.6	9.2	10.2	9.2	9.5
72.5°	4.6	8.6	8.6	7.9	7.9
75°	3.9	7.6	7.2	6.9	6.9
77.5°	3.3	6.6	6.2	5.9	5.6
80°	2.6	5.3	5.3	4.9	4.6
82.5°	2.3	4.3	4.3	4.3	3.6
85°	1.6	3.6	3.9	3.6	3.0
87.5°	1.3	3.3	3.3	3.0	2.0
90°	0.0	0.0	0.0	0.0	0.0



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**CIE UGR TABLE:**

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	3.90	5.22	4.26	5.53	5.84	11.28	12.60	11.64	12.91	13.22
	3H	5.29	6.46	5.67	6.79	7.16	11.51	12.68	11.89	13.01	13.37
	4H	5.85	6.94	6.25	7.29	7.67	11.62	12.71	12.02	13.06	13.44
	6H	6.28	7.28	6.70	7.65	8.05	11.73	12.74	12.15	13.11	13.50
	8H	6.46	7.41	6.89	7.80	8.20	11.79	12.74	12.22	13.13	13.53
	12H	6.61	7.52	7.04	7.90	8.33	11.85	12.75	12.28	13.14	13.57
4H	2H	5.01	6.10	5.41	6.45	6.83	11.23	12.33	11.64	12.68	13.06
	3H	6.67	7.57	7.09	7.97	8.37	11.59	12.49	12.01	12.89	13.29
	4H	7.49	8.29	7.92	8.71	9.15	11.79	12.59	12.23	13.01	13.45
	6H	8.13	8.82	8.59	9.26	9.73	12.02	12.71	12.48	13.15	13.62
	8H	8.36	9.01	8.83	9.45	9.92	12.12	12.77	12.59	13.21	13.68
	12H	8.57	9.14	9.06	9.62	10.10	12.25	12.82	12.74	13.30	13.78
8H	4H	7.93	8.57	8.40	9.02	9.49	11.83	12.47	12.30	12.92	13.39
	6H	8.84	9.37	9.35	9.87	10.35	12.15	12.68	12.66	13.18	13.66
	8H	9.27	9.74	9.79	10.26	10.75	12.34	12.82	12.87	13.34	13.83
	12H	9.68	10.10	10.19	10.59	11.16	12.60	13.02	13.11	13.51	14.08
12H	4H	7.98	8.56	8.47	9.04	9.51	11.82	12.39	12.30	12.87	13.35
	6H	8.98	9.46	9.50	9.97	10.46	12.17	12.65	12.69	13.16	13.66
	8H	9.52	9.94	10.03	10.44	11.01	12.43	12.85	12.94	13.35	13.92