

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: P1059621

Luminaire Tested: S123RDR-H340D930-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1059621  
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-H340D930-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: 3000K CCT, 90 CRI LEDS  
Ballast/Driver: -

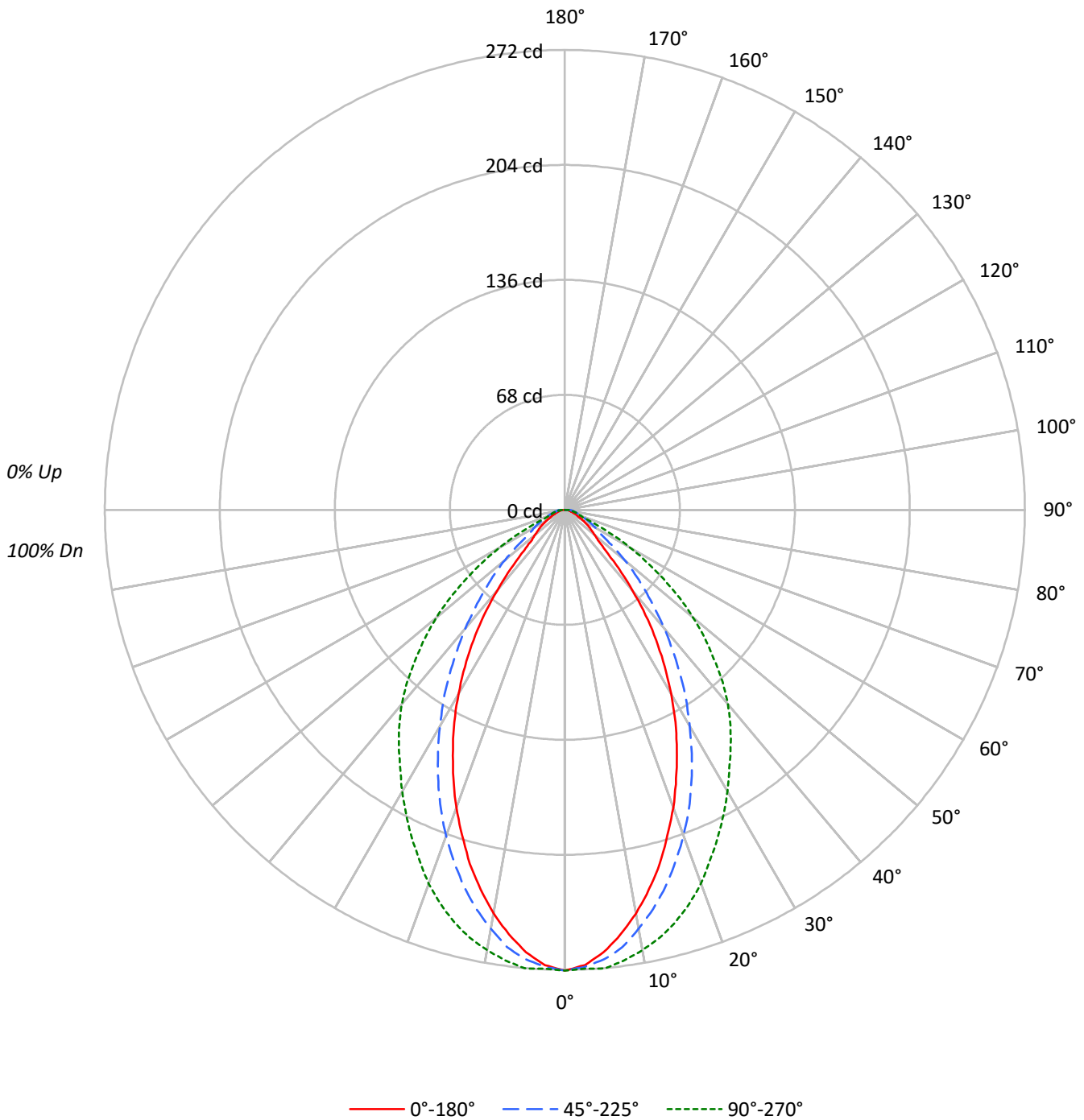
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 365.8 lumens  
Efficiency: N/A  
Efficacy: 31.3 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				
1	111	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	91	89				
2	104	98	92	88	102	96	91	87	92	88	85	89	86	83	86	84	81	79				
3	97	89	82	77	95	87	81	77	84	79	75	82	78	74	79	76	73	71				
4	90	81	74	68	88	80	73	68	77	72	67	75	70	66	73	69	66	64				
5	85	74	67	61	83	73	66	61	71	65	60	69	64	60	68	63	59	58				
6	79	68	61	55	78	67	60	55	66	59	55	64	59	54	63	58	54	52				
7	74	63	56	51	73	62	55	50	61	55	50	60	54	50	58	53	49	48				
8	70	58	51	46	69	58	51	46	57	50	46	55	50	46	54	49	45	44				
9	66	54	47	43	65	54	47	43	53	47	42	52	46	42	51	46	42	40				
10	62	51	44	39	61	50	44	39	49	43	39	49	43	39	48	43	39	37				

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

	0°	45°	90°
0°	3200	3200	3200
5°	3097	3145	3209
10°	2890	2999	3153
15°	2634	2802	3070
20°	2343	2564	2940
25°	2030	2295	2773
30°	1703	2001	2607
35°	1349	1703	2451
40°	955	1401	2299
45°	563	1108	2069
50°	420	840	1812
55°	354	569	1456
60°	287	486	1033
65°	225	414	545
70°	199	360	336
75°	186	336	322
80°	183	365	318
85°	229	552	404

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 2069 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	25.1	6.9
10°-20°	65.2	17.8
20°-30°	83.0	22.7
30°-40°	78.1	21.3
40°-50°	56.2	15.4
50°-60°	32.5	8.9
60°-70°	14.8	4.1
70°-80°	7.4	2.0
80°-90°	3.5	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°	173.3	47.4
0°-40°	251.3	68.7
0°-60°	340.1	93.0
0°-90°	365.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	365.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	272	272	272	272	272	
5°	263	267	267	270	272	24
15°	217	224	230	243	252	60
25°	157	165	177	197	214	72
35°	94	102	119	146	171	58
45°	34	42	67	100	125	29
55°	17	18	28	53	71	15
65°	8	12	15	17	20	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°	272.5	272.5	272.5	272.5	272.5
2.5°	269.5	272.9	270.5	270.8	271.5
5°	262.7	267.1	266.8	269.5	272.2
7.5°	253.2	258.3	261.0	265.1	268.8
10°	242.4	248.1	251.5	259.0	264.4
12.5°	229.9	237.3	241.7	251.5	259.3
15°	216.7	224.4	230.5	243.4	252.5
17.5°	201.8	210.2	218.0	233.3	244.4
20°	187.5	195.7	205.2	221.7	235.3
22.5°	172.0	180.8	191.6	209.2	224.4
25°	156.7	164.9	177.1	196.7	214.0
27.5°	141.5	149.6	162.5	184.2	203.1
30°	125.6	134.1	147.6	171.6	192.3
32.5°	110.0	118.1	133.4	159.4	181.1
35°	94.1	102.2	118.8	146.2	171.0
37.5°	78.5	87.0	104.6	135.4	160.8
40°	62.3	71.4	91.4	124.2	150.0
42.5°	47.1	56.9	78.2	112.7	138.1
45°	33.9	42.3	66.7	100.2	124.6
47.5°	26.4	30.8	56.2	87.3	112.1
50°	23.0	23.7	46.0	75.5	99.2
52.5°	20.0	20.7	36.2	64.3	85.6
55°	17.3	17.9	27.8	52.8	71.1
57.5°	14.6	15.6	23.0	42.0	57.2
60°	12.2	13.5	20.7	32.2	44.0
62.5°	9.8	12.2	17.6	23.7	31.5
65°	8.1	11.5	14.9	16.6	19.6
67.5°	6.8	10.5	12.5	11.8	11.5
70°	5.8	9.5	10.5	9.5	9.8
72.5°	4.7	8.8	8.8	8.1	8.1
75°	4.1	7.8	7.4	7.1	7.1
77.5°	3.4	6.8	6.4	6.1	5.8
80°	2.7	5.4	5.4	5.1	4.7
82.5°	2.4	4.4	4.4	4.4	3.7
85°	1.7	3.7	4.1	3.7	3.0
87.5°	1.4	3.4	3.4	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	4.02	5.34	4.39	5.66	5.97	11.38	12.70	11.74	13.01	13.32
	3H	5.42	6.59	5.80	6.92	7.28	11.61	12.78	11.99	13.11	13.47
	4H	5.97	7.06	6.37	7.41	7.79	11.72	12.81	12.12	13.16	13.55
	6H	6.40	7.40	6.82	7.77	8.17	11.84	12.84	12.25	13.21	13.60
	8H	6.58	7.53	7.01	7.92	8.33	11.89	12.84	12.32	13.23	13.63
	12H	6.74	7.65	7.17	8.03	8.46	11.94	12.85	12.38	13.23	13.66
4H	2H	5.12	6.21	5.52	6.56	6.94	11.34	12.43	11.74	12.78	13.16
	3H	6.78	7.68	7.20	8.08	8.49	11.69	12.59	12.11	12.99	13.39
	4H	7.60	8.40	8.03	8.81	9.26	11.89	12.69	12.33	13.11	13.55
	6H	8.23	8.92	8.69	9.37	9.83	12.12	12.81	12.58	13.26	13.72
	8H	8.47	9.11	8.94	9.56	10.03	12.22	12.87	12.69	13.31	13.79
	12H	8.68	9.25	9.17	9.74	10.21	12.35	12.92	12.83	13.40	13.88
8H	4H	8.03	8.68	8.50	9.13	9.60	11.93	12.57	12.40	13.02	13.49
	6H	8.94	9.47	9.44	9.97	10.45	12.26	12.79	12.76	13.28	13.76
	8H	9.36	9.84	9.88	10.35	10.85	12.44	12.92	12.97	13.44	13.93
	12H	9.78	10.20	10.29	10.70	11.27	12.69	13.11	13.20	13.61	14.18
12H	4H	8.09	8.66	8.58	9.15	9.62	11.92	12.49	12.40	12.97	13.45
	6H	9.08	9.55	9.60	10.07	10.56	12.27	12.75	12.79	13.26	13.76
	8H	9.62	10.04	10.13	10.53	11.10	12.53	12.95	13.04	13.44	14.02