

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: P1059630

Luminaire Tested: S123RDR-H340D935-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1059630  
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-H340D935-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: 3500K CCT, 90 CRI LEDS  
Ballast/Driver: -

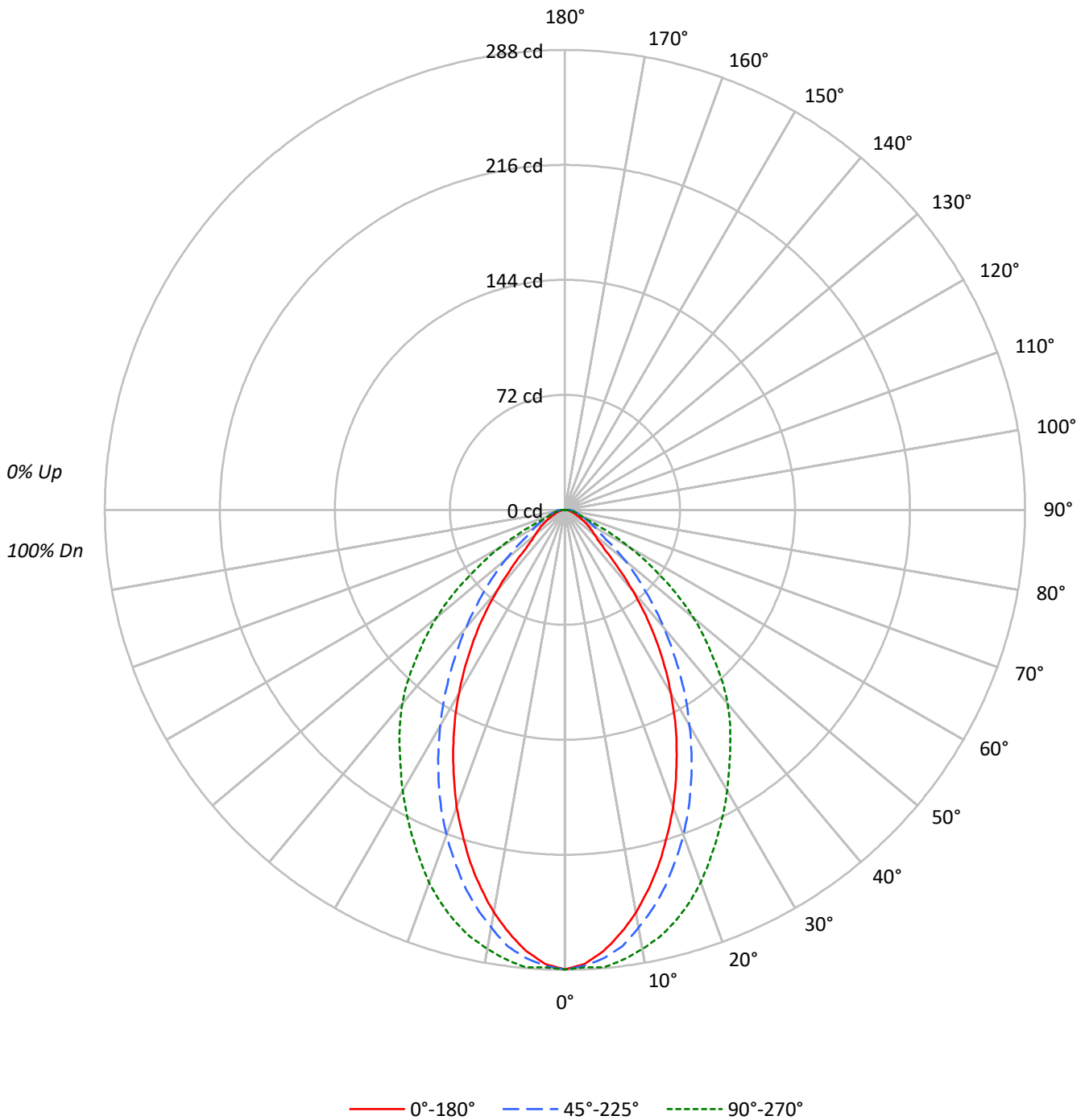
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 386.3 lumens  
Efficiency: N/A  
Efficacy: 33.0 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°	3379	3379	3379
5°	3270	3320	3388
10°	3052	3167	3329
15°	2781	2960	3242
20°	2475	2708	3105
25°	2144	2423	2927
30°	1798	2114	2754
35°	1425	1799	2587
40°	1009	1479	2428
45°	595	1169	2185
50°	444	888	1914
55°	373	600	1537
60°	303	512	1092
65°	239	436	575
70°	209	381	357
75°	195	358	340
80°	196	385	338
85°	243	579	431

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 2185 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	26.5	6.9
10°-20°	68.8	17.8
20°-30°	87.7	22.7
30°-40°	82.5	21.3
40°-50°	59.4	15.4
50°-60°	34.3	8.9
60°-70°	15.7	4.1
70°-80°	7.8	2.0
80°-90°	3.7	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°	183.0	47.4
0°-40°	265.4	68.7
0°-60°	359.1	93.0
0°-90°	386.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	386.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	288	288	288	288	288	
5°	277	282	282	285	287	26
15°	229	237	244	257	267	64
25°	166	174	187	208	226	76
35°	99	108	126	154	180	62
45°	36	45	70	106	132	30
55°	18	19	29	56	75	16
65°	9	12	16	18	21	9
75°	4	8	8	8	8	5
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°	287.8	287.8	287.8	287.8	287.8
2.5°	284.6	288.2	285.7	286.0	286.7
5°	277.4	282.1	281.7	284.6	287.4
7.5°	267.4	272.8	275.6	279.9	283.9
10°	256.0	262.1	265.6	273.5	279.2
12.5°	242.7	250.6	255.3	265.6	273.9
15°	228.8	237.0	243.5	257.0	266.7
17.5°	213.1	222.0	230.2	246.3	258.1
20°	198.1	206.6	216.7	234.2	248.5
22.5°	181.6	190.9	202.4	220.9	237.0
25°	165.5	174.1	187.0	207.7	225.9
27.5°	149.4	158.0	171.6	194.5	214.5
30°	132.6	141.6	155.9	181.3	203.1
32.5°	116.2	124.8	140.9	168.4	191.3
35°	99.4	108.0	125.5	154.4	180.5
37.5°	82.9	91.9	110.5	143.0	169.8
40°	65.8	75.4	96.5	131.2	158.4
42.5°	49.7	60.1	82.6	119.1	145.9
45°	35.8	44.7	70.4	105.8	131.6
47.5°	27.9	32.5	59.3	92.2	118.3
50°	24.3	25.0	48.6	79.7	104.8
52.5°	21.1	21.8	38.3	67.9	90.5
55°	18.2	18.9	29.3	55.8	75.1
57.5°	15.4	16.4	24.3	44.3	60.4
60°	12.9	14.3	21.8	34.0	46.5
62.5°	10.4	12.9	18.6	25.0	33.2
65°	8.6	12.2	15.7	17.5	20.7
67.5°	7.2	11.1	13.2	12.5	12.2
70°	6.1	10.0	11.1	10.0	10.4
72.5°	5.0	9.3	9.3	8.6	8.6
75°	4.3	8.2	7.9	7.5	7.5
77.5°	3.6	7.2	6.8	6.4	6.1
80°	2.9	5.7	5.7	5.4	5.0
82.5°	2.5	4.6	4.6	4.6	3.9
85°	1.8	3.9	4.3	3.9	3.2
87.5°	1.4	3.6	3.6	3.2	2.1
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	4.19	5.51	4.55	5.82	6.14	11.56	12.88	11.93	13.19	13.51
	3H	5.59	6.76	5.97	7.09	7.45	11.79	12.96	12.17	13.29	13.66
	4H	6.14	7.23	6.54	7.58	7.97	11.91	13.00	12.31	13.35	13.73
	6H	6.58	7.58	7.00	7.95	8.35	12.02	13.02	12.44	13.39	13.79
	8H	6.76	7.71	7.19	8.10	8.50	12.07	13.02	12.50	13.41	13.82
	12H	6.91	7.82	7.35	8.21	8.64	12.13	13.04	12.56	13.42	13.85
4H	2H	5.29	6.38	5.69	6.73	7.11	11.52	12.61	11.92	12.96	13.34
	3H	6.96	7.85	7.37	8.26	8.66	11.88	12.77	12.29	13.18	13.58
	4H	7.77	8.57	8.21	8.99	9.43	12.08	12.88	12.51	13.30	13.74
	6H	8.41	9.10	8.88	9.55	10.02	12.31	13.00	12.77	13.44	13.91
	8H	8.65	9.29	9.11	9.74	10.21	12.41	13.05	12.88	13.50	13.97
	12H	8.86	9.43	9.34	9.91	10.39	12.53	13.11	13.02	13.59	14.06
8H	4H	8.21	8.86	8.68	9.31	9.78	12.12	12.76	12.58	13.21	13.68
	6H	9.13	9.66	9.63	10.15	10.64	12.44	12.97	12.95	13.47	13.95
	8H	9.54	10.02	10.06	10.53	11.03	12.63	13.11	13.15	13.62	14.11
	12H	9.96	10.38	10.47	10.87	11.44	12.88	13.30	13.39	13.79	14.36
12H	4H	8.27	8.84	8.76	9.33	9.80	12.10	12.68	12.59	13.16	13.63
	6H	9.26	9.74	9.78	10.25	10.74	12.46	12.94	12.98	13.45	13.94
	8H	9.79	10.21	10.31	10.71	11.28	12.71	13.13	13.23	13.63	14.20