

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: P1059783

Luminaire Tested: S123RDR-H775D930-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1059783  
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-H775D930-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: -

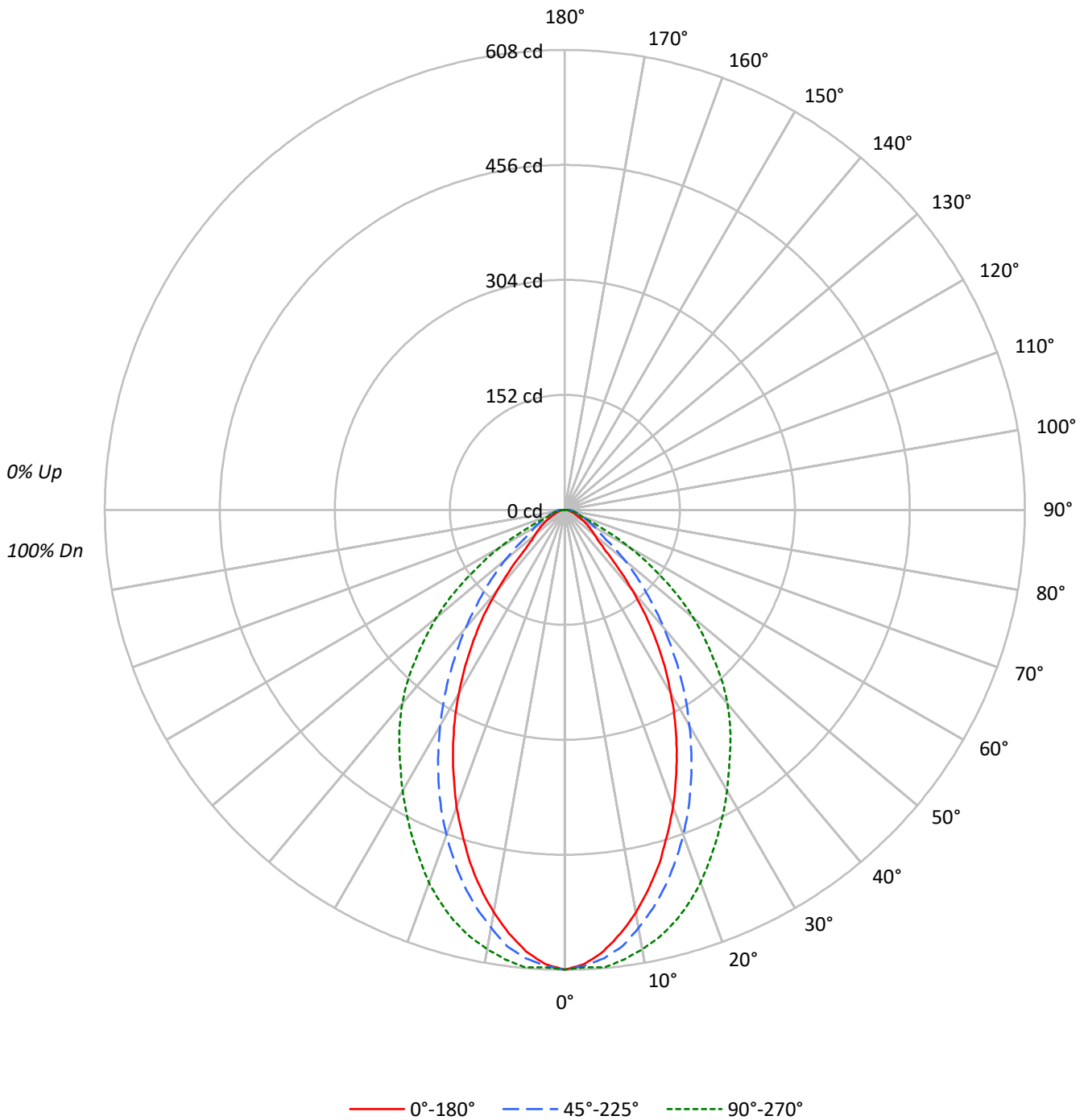
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 815.9 lumens  
Efficiency: N/A  
Efficacy: 34.7 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): 23.5  
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	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°	7137	7137	7137
5°	6906	7013	7155
10°	6446	6689	7031
15°	5874	6251	6848
20°	5227	5717	6557
25°	4530	5116	6183
30°	3798	4464	5815
35°	3009	3799	5466
40°	2129	3126	5127
45°	1254	2469	4615
50°	937	1876	4041
55°	788	1267	3247
60°	639	1083	2306
65°	503	922	1217
70°	439	803	752
75°	413	753	721
80°	406	818	717
85°	512	1226	916

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 4615 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	55.9	6.9
10°-20°	145.4	17.8
20°-30°	185.1	22.7
30°-40°	174.1	21.3
40°-50°	125.4	15.4
50°-60°	72.4	8.9
60°-70°	33.1	4.1
70°-80°	16.5	2.0
80°-90°	7.8	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°	386.4	47.4
0°-40°	560.6	68.7
0°-60°	758.4	93.0
0°-90°	815.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	815.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	608	608	608	608	608	
5°	586	596	595	601	607	54
15°	483	501	514	543	563	135
25°	350	368	395	439	477	160
35°	210	228	265	326	381	130
45°	76	94	149	224	278	64
55°	38	40	62	118	159	35
65°	18	26	33	37	44	19
75°	9	17	17	16	16	10
85°	4	8	9	8	7	4
90°	0	0	0	0	0	

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CATALOG NUMBER: S123RDR-H775D930-X4F0-XX-UDD-SVL-W

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	607.8	607.8	607.8	607.8	607.8
2.5°	601.0	608.6	603.3	604.0	605.5
5°	585.9	595.7	595.0	601.0	607.0
7.5°	564.8	576.1	582.1	591.2	599.5
10°	540.6	553.4	561.0	577.6	589.7
12.5°	512.7	529.3	539.1	561.0	578.4
15°	483.2	500.6	514.2	542.9	563.3
17.5°	450.0	468.9	486.2	520.2	545.1
20°	418.3	436.4	457.5	494.5	524.7
22.5°	383.6	403.2	427.3	466.6	500.6
25°	349.6	367.7	394.9	438.7	477.2
27.5°	315.6	333.7	362.4	410.7	453.0
30°	280.1	299.0	329.2	382.8	428.9
32.5°	245.4	263.5	297.5	355.6	403.9
35°	209.9	228.0	265.0	326.2	381.3
37.5°	175.2	194.0	233.3	302.0	358.6
40°	138.9	159.3	203.9	277.1	334.5
42.5°	104.9	126.8	174.4	251.4	308.1
45°	75.5	94.4	148.7	223.5	277.9
47.5°	58.9	68.7	125.3	194.8	249.9
50°	51.3	52.9	102.7	168.4	221.2
52.5°	44.5	46.1	80.8	143.5	191.0
55°	38.5	40.0	61.9	117.8	158.6
57.5°	32.5	34.7	51.3	93.6	127.6
60°	27.2	30.2	46.1	71.7	98.2
62.5°	21.9	27.2	39.3	52.9	70.2
65°	18.1	25.7	33.2	37.0	43.8
67.5°	15.1	23.4	27.9	26.4	25.7
70°	12.8	21.1	23.4	21.1	21.9
72.5°	10.6	19.6	19.6	18.1	18.1
75°	9.1	17.4	16.6	15.9	15.9
77.5°	7.6	15.1	14.3	13.6	12.8
80°	6.0	12.1	12.1	11.3	10.6
82.5°	5.3	9.8	9.8	9.8	8.3
85°	3.8	8.3	9.1	8.3	6.8
87.5°	3.0	7.6	7.6	6.8	4.5
90°	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1059783

CATALOG NUMBER: S123RDR-H775D930-X4F0-XX-UDD-SVL-W

**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	6.80	8.11	7.16	8.43	8.74	14.16	15.48	14.53	15.79	16.11
	3H	8.18	9.35	8.56	9.68	10.05	14.39	15.56	14.77	15.89	16.26
	4H	8.74	9.83	9.14	10.18	10.56	14.51	15.60	14.91	15.95	16.33
	6H	9.17	10.18	9.59	10.55	10.94	14.62	15.62	15.03	15.99	16.39
	8H	9.35	10.30	9.78	10.69	11.10	14.67	15.62	15.10	16.01	16.42
	12H	9.51	10.42	9.94	10.80	11.23	14.73	15.64	15.16	16.02	16.45
4H	2H	7.90	8.99	8.30	9.34	9.72	14.12	15.21	14.52	15.56	15.94
	3H	9.56	10.45	9.97	10.85	11.26	14.48	15.37	14.89	15.78	16.18
	4H	10.37	11.17	10.81	11.59	12.03	14.68	15.48	15.11	15.89	16.34
	6H	11.01	11.70	11.47	12.14	12.61	14.90	15.59	15.37	16.04	16.51
	8H	11.24	11.89	11.71	12.33	12.81	15.01	15.65	15.48	16.10	16.57
	12H	11.46	12.03	11.94	12.51	12.98	15.14	15.71	15.62	16.19	16.66
8H	4H	10.81	11.46	11.28	11.90	12.38	14.71	15.36	15.18	15.81	16.28
	6H	11.72	12.25	12.23	12.75	13.23	15.04	15.57	15.54	16.07	16.55
	8H	12.14	12.62	12.66	13.13	13.63	15.23	15.71	15.75	16.22	16.71
	12H	12.56	12.98	13.08	13.48	14.05	15.48	15.90	15.99	16.40	16.97
12H	4H	10.87	11.44	11.35	11.92	12.40	14.70	15.27	15.19	15.76	16.23
	6H	11.86	12.34	12.38	12.85	13.34	15.06	15.53	15.58	16.05	16.54
	8H	12.40	12.82	12.91	13.31	13.88	15.31	15.74	15.83	16.23	16.80