

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: P1059791

Luminaire Tested: S123RDR-H775D935-X4F0-XX-UDD-SVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1059791  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-68)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123RDR-H775D935-X4F0-XX-UDD-SVL-S  
Description: DEFINE 3 SILVER REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 3500K CCT, 90 CRI LEDS  
Ballast/Driver: -

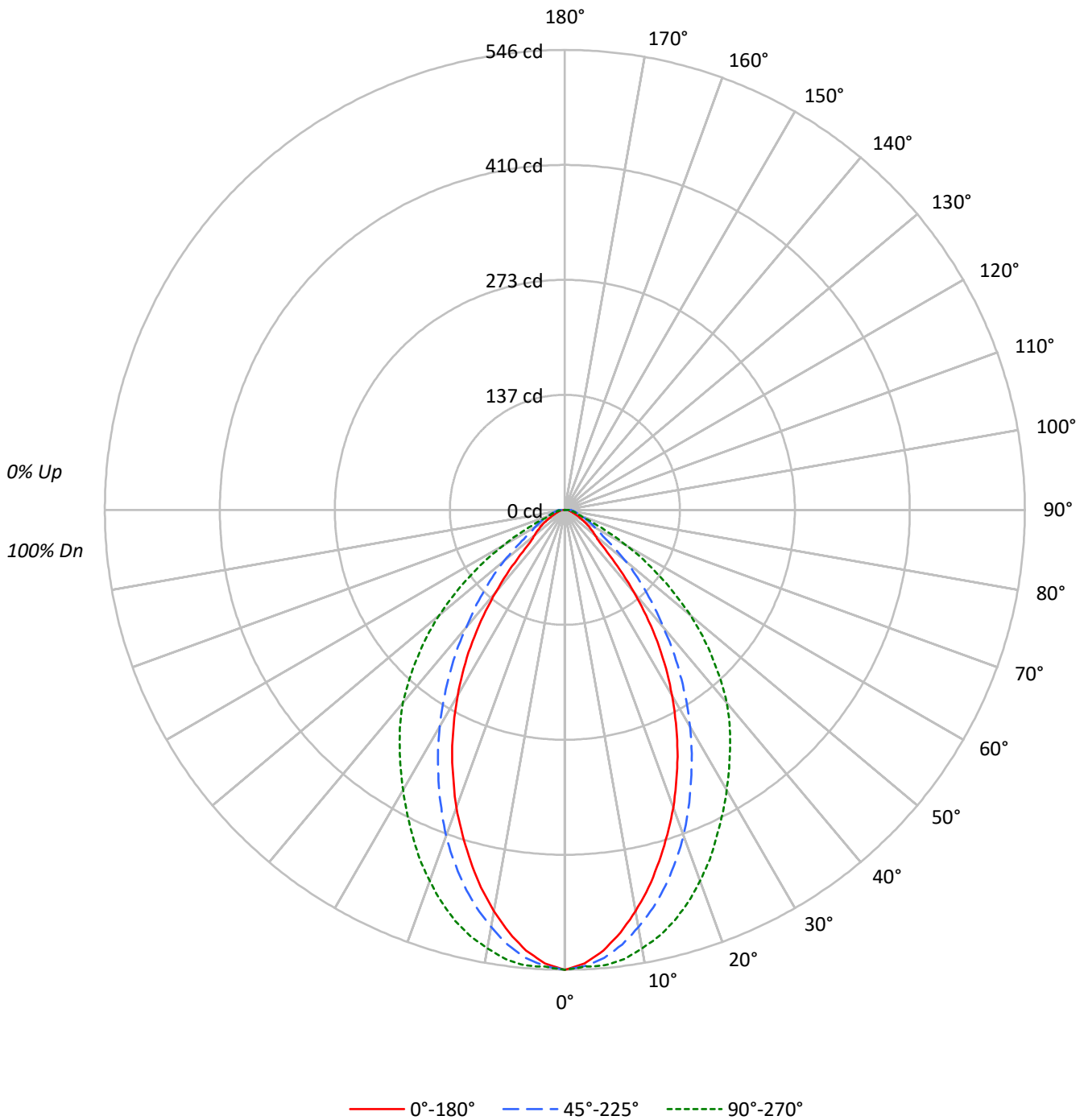
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 731.3 lumens  
Efficiency: N/A  
Efficacy: 31.1 lumens/watt  
Spacing Criteria (0/90/45): 0.83 / 1.07 / 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	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	101	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	91	81	74	69	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	61	69	64	60	68	63	59	58				
6	79	68	61	56	78	67	60	55	66	60	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	56	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	50	43	39	49	43	39	48	43	39	37				

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

	0°	45°	90°
0°	6413	6413	6413
5°	6192	6296	6399
10°	5770	5998	6302
15°	5253	5612	6134
20°	4702	5150	5857
25°	4101	4596	5536
30°	3448	4031	5209
35°	2742	3416	4903
40°	1954	2787	4582
45°	1164	2237	4103
50°	859	1704	3553
55°	719	1159	2823
60°	580	956	1984
65°	464	820	1064
70°	385	711	656
75°	363	685	617
80°	379	757	595
85°	539	1078	754

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 4103 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	50.2	6.9
10°-20°	130.3	17.8
20°-30°	166.2	22.7
30°-40°	156.4	21.4
40°-50°	112.4	15.4
50°-60°	64.4	8.8
60°-70°	29.4	4.0
70°-80°	14.8	2.0
80°-90°	7.2	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°	346.7	47.4
0°-40°	503.0	68.8
0°-60°	679.8	93.0
0°-90°	731.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	731.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	546	546	546	546	546	
5°	525	536	534	538	543	49
15°	432	447	462	486	505	121
25°	316	331	355	393	427	145
35°	191	205	238	293	342	118
45°	70	85	135	198	247	59
55°	35	36	57	104	138	31
65°	17	23	30	33	38	17
75°	8	16	15	14	14	9
85°	4	8	8	7	6	4
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	546.1	546.1	546.1	546.1	546.1
2.5°	538.9	546.8	542.1	542.1	542.9
5°	525.3	535.7	534.1	538.1	542.9
7.5°	506.2	517.4	520.5	530.1	538.1
10°	483.9	496.6	503.0	518.2	528.5
12.5°	459.2	473.5	483.9	503.0	518.2
15°	432.1	447.2	461.6	486.3	504.6
17.5°	404.2	419.3	437.6	466.3	487.9
20°	376.3	391.4	412.1	442.4	468.7
22.5°	346.0	361.1	383.4	417.7	449.6
25°	316.5	330.8	354.7	393.0	427.3
27.5°	285.4	299.7	326.0	367.5	405.8
30°	254.3	268.6	297.3	342.0	384.2
32.5°	223.2	236.8	267.8	317.3	362.7
35°	191.3	204.9	238.3	292.6	342.0
37.5°	158.6	172.2	211.2	270.2	321.3
40°	127.5	142.7	181.8	247.9	298.9
42.5°	97.3	113.2	157.8	224.0	273.4
45°	70.1	85.3	134.7	198.5	247.1
47.5°	53.4	61.4	114.0	173.0	221.6
50°	47.0	47.8	93.3	149.9	194.5
52.5°	40.7	41.5	72.5	127.5	165.8
55°	35.1	35.9	56.6	104.4	137.9
57.5°	29.5	31.1	46.2	82.9	110.8
60°	24.7	27.9	40.7	63.0	84.5
62.5°	19.9	25.5	35.1	46.2	60.6
65°	16.7	23.1	29.5	32.7	38.3
67.5°	13.6	21.5	24.7	23.1	23.1
70°	11.2	19.1	20.7	19.1	19.1
72.5°	9.6	18.3	17.5	15.9	15.9
75°	8.0	15.9	15.1	13.6	13.6
77.5°	7.2	13.6	12.8	12.0	11.2
80°	5.6	11.2	11.2	10.4	8.8
82.5°	4.8	9.6	9.6	8.8	7.2
85°	4.0	8.0	8.0	7.2	5.6
87.5°	3.2	7.2	7.2	6.4	4.0
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	6.44	7.76	6.81	8.07	8.39	13.66	14.98	14.03	15.29	15.61
	3H	7.84	9.01	8.22	9.34	9.71	13.90	15.07	14.28	15.40	15.76
	4H	8.40	9.49	8.81	9.84	10.23	14.01	15.10	14.41	15.45	15.83
	6H	8.87	9.87	9.28	10.24	10.63	14.11	15.12	14.53	15.49	15.88
	8H	9.05	10.00	9.48	10.39	10.80	14.16	15.11	14.59	15.50	15.91
	12H	9.25	10.15	9.68	10.54	10.97	14.21	15.12	14.65	15.50	15.94
4H	2H	7.52	8.61	7.92	8.96	9.34	13.62	14.71	14.03	15.06	15.45
	3H	9.20	10.10	9.62	10.50	10.90	13.99	14.88	14.40	15.29	15.69
	4H	10.03	10.83	10.47	11.25	11.70	14.18	14.98	14.61	15.39	15.84
	6H	10.70	11.39	11.16	11.84	12.30	14.40	15.09	14.86	15.54	16.00
	8H	10.96	11.60	11.42	12.05	12.52	14.50	15.15	14.97	15.60	16.07
	12H	11.21	11.78	11.70	12.27	12.74	14.62	15.19	15.11	15.67	16.15
8H	4H	10.47	11.12	10.94	11.56	12.04	14.22	14.87	14.69	15.31	15.78
	6H	11.43	11.96	11.93	12.46	12.94	14.56	15.09	15.06	15.58	16.06
	8H	11.90	12.37	12.42	12.89	13.38	14.75	15.23	15.27	15.74	16.23
	12H	12.38	12.80	12.89	13.30	13.87	14.98	15.41	15.50	15.90	16.47
12H	4H	10.53	11.10	11.02	11.59	12.06	14.21	14.79	14.70	15.27	15.74
	6H	11.58	12.06	12.10	12.57	13.06	14.58	15.06	15.11	15.58	16.07
	8H	12.17	12.60	12.69	13.09	13.66	14.85	15.27	15.36	15.76	16.33