

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: P1059782

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

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1059782  
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-H775D930-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: 3000K CCT, 90 CRI LEDS  
Ballast/Driver: -

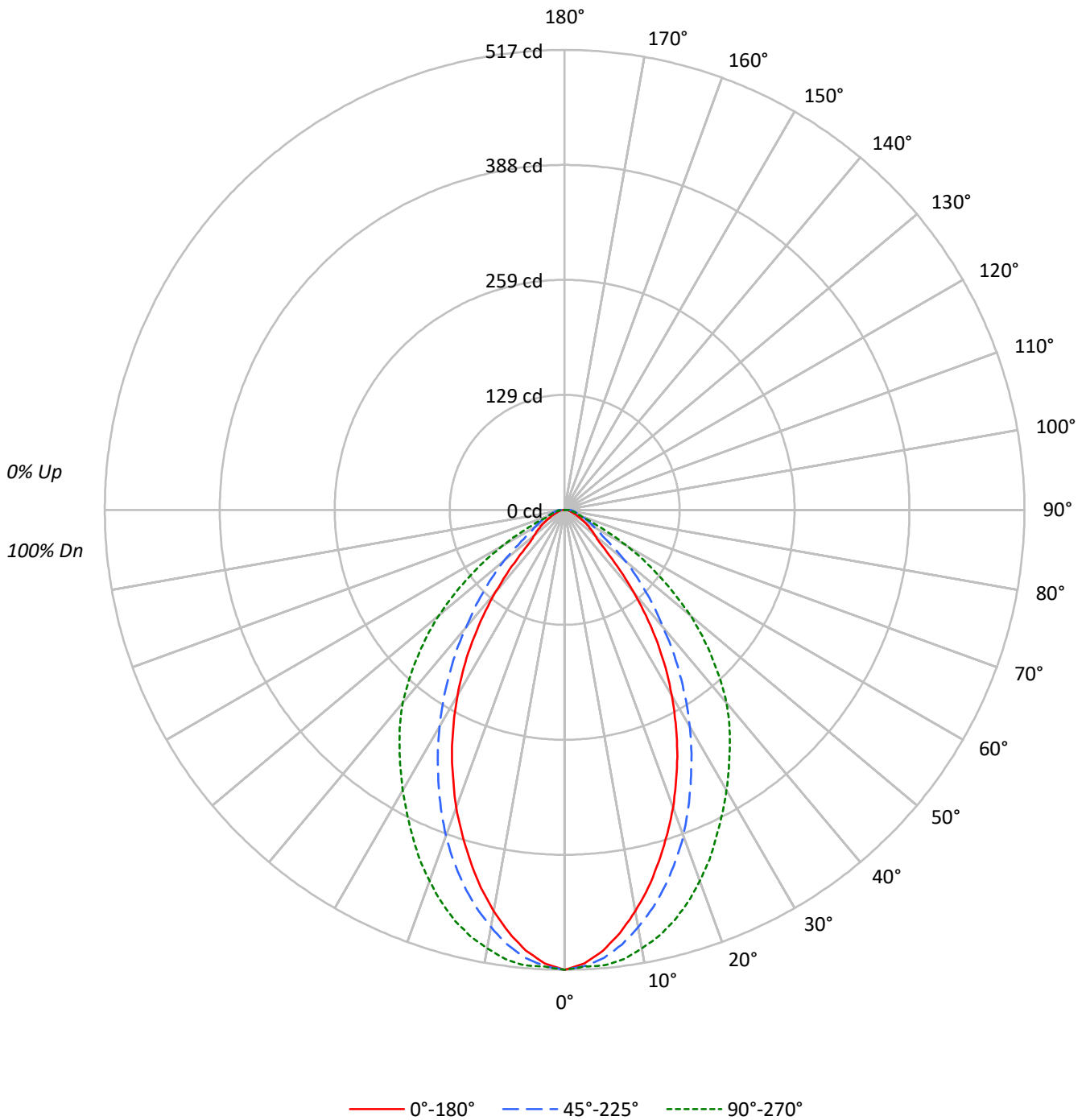
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 692.5 lumens  
Efficiency: N/A  
Efficacy: 29.5 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				100
1	111	108	105	102	109	106	103	100	101	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	91	81	74	69	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	61	69	64	60	68	63	59	58				58
6	79	68	61	56	78	67	60	55	66	60	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	56	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	50	43	39	49	43	39	48	43	39	37				37

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

	0°	45°	90°
0°	6072	6072	6072
5°	5863	5961	6059
10°	5463	5679	5968
15°	4973	5314	5808
20°	4452	4877	5546
25°	3883	4352	5242
30°	3265	3818	4933
35°	2597	3235	4642
40°	1852	2638	4340
45°	1103	2119	3886
50°	813	1613	3365
55°	680	1097	2674
60°	550	904	1879
65°	442	775	1006
70°	364	673	621
75°	340	649	581
80°	358	717	561
85°	512	1010	714

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 3886 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	47.5	6.9
10°-20°	123.4	17.8
20°-30°	157.4	22.7
30°-40°	148.1	21.4
40°-50°	106.4	15.4
50°-60°	61.0	8.8
60°-70°	27.9	4.0
70°-80°	14.0	2.0
80°-90°	6.8	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°	328.3	47.4
0°-40°	476.3	68.8
0°-60°	643.7	93.0
0°-90°	692.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	692.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	517	517	517	517	517	
5°	497	507	506	510	514	46
15°	409	424	437	460	478	114
25°	300	313	336	372	405	137
35°	181	194	226	277	324	112
45°	66	81	128	188	234	56
55°	33	34	54	99	131	30
65°	16	22	28	31	36	16
75°	8	15	14	13	13	8
85°	4	8	8	7	5	4
90°	0	0	0	0	0	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	517.1	517.1	517.1	517.1	517.1
2.5°	510.3	517.8	513.3	513.3	514.0
5°	497.4	507.3	505.7	509.5	514.0
7.5°	479.3	489.9	492.9	502.0	509.5
10°	458.2	470.3	476.3	490.6	500.5
12.5°	434.8	448.4	458.2	476.3	490.6
15°	409.1	423.5	437.1	460.5	477.8
17.5°	382.7	397.0	414.4	441.6	462.0
20°	356.3	370.6	390.3	418.9	443.8
22.5°	327.6	341.9	363.1	395.5	425.7
25°	299.7	313.3	335.9	372.1	404.6
27.5°	270.2	283.8	308.7	348.0	384.2
30°	240.8	254.4	281.6	323.8	363.8
32.5°	211.4	224.2	253.6	300.4	343.5
35°	181.2	194.0	225.7	277.0	323.8
37.5°	150.2	163.0	200.0	255.9	304.2
40°	120.8	135.1	172.1	234.8	283.1
42.5°	92.1	107.2	149.5	212.1	258.9
45°	66.4	80.8	127.6	188.0	234.0
47.5°	50.6	58.1	107.9	163.8	209.8
50°	44.5	45.3	88.3	141.9	184.2
52.5°	38.5	39.3	68.7	120.8	157.0
55°	33.2	34.0	53.6	98.9	130.6
57.5°	27.9	29.4	43.8	78.5	104.9
60°	23.4	26.4	38.5	59.6	80.0
62.5°	18.9	24.2	33.2	43.8	57.4
65°	15.9	21.9	27.9	30.9	36.2
67.5°	12.8	20.4	23.4	21.9	21.9
70°	10.6	18.1	19.6	18.1	18.1
72.5°	9.1	17.4	16.6	15.1	15.1
75°	7.5	15.1	14.3	12.8	12.8
77.5°	6.8	12.8	12.1	11.3	10.6
80°	5.3	10.6	10.6	9.8	8.3
82.5°	4.5	9.1	9.1	8.3	6.8
85°	3.8	7.5	7.5	6.8	5.3
87.5°	3.0	6.8	6.8	6.0	3.8
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	6.24	7.56	6.61	7.87	8.19	13.47	14.79	13.84	15.10	15.42
	3H	7.65	8.81	8.03	9.14	9.51	13.71	14.88	14.09	15.21	15.57
	4H	8.21	9.30	8.61	9.65	10.03	13.82	14.91	14.22	15.26	15.64
	6H	8.67	9.67	9.08	10.04	10.43	13.92	14.92	14.34	15.30	15.69
	8H	8.85	9.80	9.28	10.19	10.60	13.97	14.92	14.40	15.31	15.72
	12H	9.05	9.95	9.48	10.34	10.77	14.02	14.93	14.46	15.31	15.74
4H	2H	7.32	8.41	7.72	8.76	9.14	13.43	14.52	13.84	14.87	15.26
	3H	9.01	9.90	9.42	10.31	10.71	13.80	14.70	14.22	15.10	15.50
	4H	9.84	10.64	10.28	11.06	11.50	13.98	14.78	14.42	15.20	15.65
	6H	10.50	11.19	10.97	11.64	12.11	14.21	14.90	14.67	15.34	15.81
	8H	10.76	11.40	11.23	11.85	12.32	14.31	14.95	14.78	15.40	15.87
	12H	11.01	11.59	11.50	12.07	12.54	14.43	15.00	14.91	15.48	15.95
8H	4H	10.28	10.92	10.75	11.37	11.84	14.03	14.68	14.50	15.12	15.59
	6H	11.23	11.76	11.74	12.26	12.74	14.36	14.89	14.86	15.39	15.87
	8H	11.70	12.18	12.22	12.69	13.19	14.55	15.03	15.07	15.54	16.04
	12H	12.18	12.60	12.69	13.10	13.67	14.79	15.21	15.30	15.70	16.27
12H	4H	10.34	10.91	10.82	11.39	11.87	14.02	14.59	14.51	15.08	15.55
	6H	11.38	11.86	11.90	12.38	12.87	14.39	14.87	14.91	15.38	15.87
	8H	11.98	12.40	12.49	12.90	13.47	14.65	15.07	15.16	15.57	16.14