

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: P1061903

Luminaire Tested: S125RDR-H1090D940-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1061903  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-87)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S125RDR-H1090D940-X4F0-XX-UDD-BVL-S  
Description: DEFINE 5 SILVER REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: -

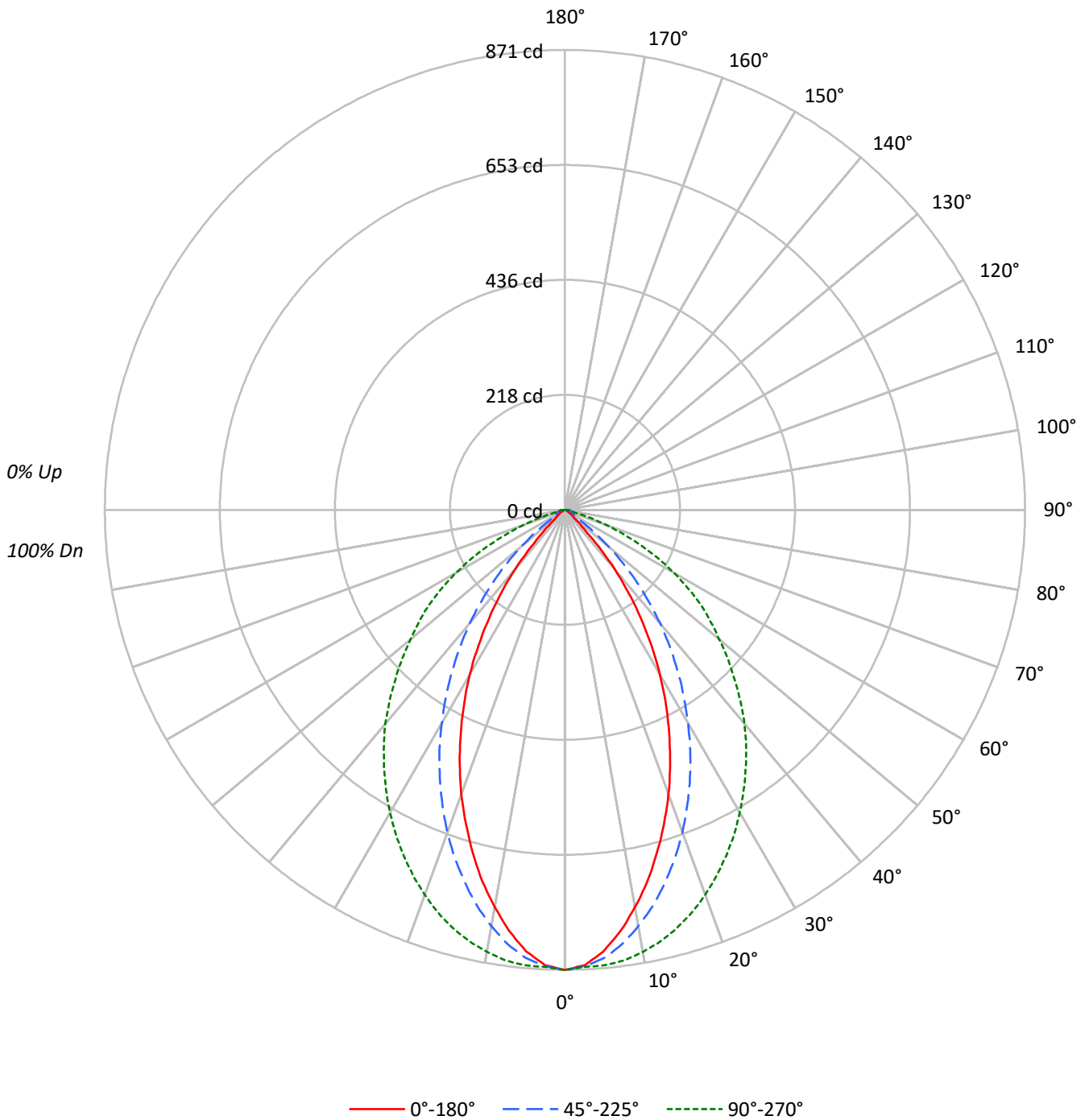
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1120.9 lumens  
Efficiency: N/A  
Efficacy: 35.9 lumens/watt  
Spacing Criteria (0/90/45): 0.79 / 1.14 / 0.98  
Luminous Opening: Rectangular (W 0.39' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 31.2  
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	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90				90
2	105	98	93	89	102	97	92	88	93	89	86	90	87	84	87	85	82	81				81
3	98	90	83	78	95	88	82	78	85	80	76	83	79	75	80	77	74	72				72
4	91	82	75	70	89	81	74	69	78	73	68	76	71	68	74	70	67	65				65
5	85	75	68	63	84	74	67	62	72	66	62	70	65	61	69	64	61	59				59
6	80	69	62	57	78	68	62	57	67	61	56	65	60	56	64	59	55	54				54
7	75	64	57	52	74	63	56	52	62	56	51	61	55	51	59	54	51	49				49
8	71	60	52	47	69	59	52	47	58	52	47	57	51	47	55	50	47	45				45
9	67	55	48	44	66	55	48	44	54	48	44	53	47	43	52	47	43	42				42
10	63	52	45	41	62	51	45	40	50	44	40	50	44	40	49	44	40	39				39

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

	0°	45°	90°
0°	6000	6000	6000
5°	5800	5889	5986
10°	5342	5597	5943
15°	4797	5210	5844
20°	4199	4766	5685
25°	3546	4256	5487
30°	2858	3703	5265
35°	2102	3121	5015
40°	1312	2518	4756
45°	491	1839	4421
50°	230	1149	4081
55°	168	477	3774
60°	118	251	3266
65°	70	297	2587
70°	64	346	1643
75°	85	343	513
80°	127	424	385
85°	253	679	506

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 4421 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	79.9	7.1
10°-20°	206.9	18.5
20°-30°	263.5	23.5
30°-40°	245.3	21.9
40°-50°	168.1	15.0
50°-60°	92.5	8.3
60°-70°	43.8	3.9
70°-80°	13.8	1.2
80°-90°	7.1	0.6
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°	550.3	49.1
0°-40°	795.6	71.0
0°-60°	1056.2	94.2
0°-90°	1120.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1120.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	871	871	871	871	871	
5°	839	850	852	859	866	78
15°	673	694	731	786	820	188
25°	467	496	560	650	722	213
35°	250	286	371	494	597	155
45°	50	85	189	335	454	48
55°	14	16	40	187	314	13
65°	4	5	18	69	159	5
75°	3	5	13	14	19	3
85°	3	8	9	8	6	3
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	871.4	871.4	871.4	871.4	871.4
2.5°	862.9	871.4	865.0	865.0	866.1
5°	839.2	850.0	852.1	858.6	866.1
7.5°	804.9	818.9	829.6	847.8	860.7
10°	764.1	781.3	800.6	830.7	850.0
12.5°	721.2	739.4	768.4	810.3	837.1
15°	672.9	694.4	730.9	785.6	819.9
17.5°	623.5	647.1	692.2	756.6	799.5
20°	573.1	597.8	650.4	722.3	775.9
22.5°	520.5	547.3	605.3	686.9	750.2
25°	466.8	495.8	560.2	650.4	722.3
27.5°	413.2	443.2	514.1	612.8	693.3
30°	359.5	390.6	465.8	574.2	662.2
32.5°	304.8	339.1	418.6	535.5	630.0
35°	250.1	285.5	371.3	493.7	596.7
37.5°	196.4	232.9	325.2	454.0	563.4
40°	146.0	182.4	280.1	414.3	529.1
42.5°	94.4	133.1	232.9	373.5	491.5
45°	50.4	84.8	188.9	334.8	454.0
47.5°	26.8	45.1	147.0	296.2	418.6
50°	21.5	24.7	107.3	257.6	381.0
52.5°	17.2	19.3	68.7	217.9	347.7
55°	14.0	16.1	39.7	186.7	314.4
57.5°	10.7	12.9	22.5	155.6	275.8
60°	8.6	9.7	18.2	124.5	237.2
62.5°	5.4	7.5	18.2	96.6	198.5
65°	4.3	5.4	18.2	68.7	158.8
67.5°	4.3	4.3	18.2	45.1	119.1
70°	3.2	3.2	17.2	29.0	81.6
72.5°	3.2	3.2	15.0	19.3	47.2
75°	3.2	5.4	12.9	14.0	19.3
77.5°	3.2	8.6	11.8	11.8	10.7
80°	3.2	8.6	10.7	9.7	9.7
82.5°	3.2	8.6	8.6	8.6	7.5
85°	3.2	7.5	8.6	7.5	6.4
87.5°	3.2	7.5	7.5	7.5	4.3
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	0.00	0.00	0.00	0.00	0.00	15.27	16.56	15.64	16.87	17.18
	3H	0.00	0.00	0.00	0.00	0.00	16.06	17.19	16.44	17.52	17.89
	4H	0.00	0.00	0.00	0.00	0.00	16.08	17.14	16.49	17.49	17.88
	6H	0.00	0.00	0.00	0.30	0.69	16.04	17.01	16.45	17.38	17.78
	8H	0.00	0.55	0.06	0.94	1.35	16.02	16.94	16.45	17.33	17.73
	12H	0.37	1.25	0.81	1.63	2.06	16.00	16.88	16.43	17.26	17.69
4H	2H	0.00	0.10	0.00	0.46	0.84	15.05	16.11	15.46	16.46	16.85
	3H	0.00	0.78	0.33	1.19	1.59	15.88	16.74	16.29	17.15	17.55
	4H	0.52	1.29	0.96	1.71	2.15	15.92	16.69	16.35	17.11	17.55
	6H	2.02	2.68	2.48	3.13	3.59	15.90	16.57	16.37	17.01	17.48
	8H	2.76	3.38	3.23	3.82	4.29	15.89	16.51	16.36	16.95	17.43
	12H	3.49	4.04	3.98	4.52	5.00	15.89	16.43	16.38	16.92	17.39
8H	4H	2.56	3.18	3.03	3.63	4.10	15.80	16.42	16.27	16.87	17.34
	6H	4.31	4.81	4.81	5.31	5.79	15.80	16.31	16.31	16.81	17.29
	8H	5.26	5.71	5.78	6.23	6.72	15.81	16.26	16.33	16.78	17.27
	12H	6.19	6.59	6.71	7.09	7.66	15.86	16.26	16.37	16.75	17.32
12H	4H	2.86	3.41	3.35	3.89	4.37	15.76	16.31	16.25	16.79	17.26
	6H	4.77	5.22	5.29	5.74	6.23	15.76	16.21	16.28	16.73	17.22
	8H	5.90	6.30	6.41	6.79	7.37	15.80	16.20	16.31	16.69	17.27