

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: P1062146

Luminaire Tested: S125RDR-H610D940-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1062146  
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-H610D940-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: -

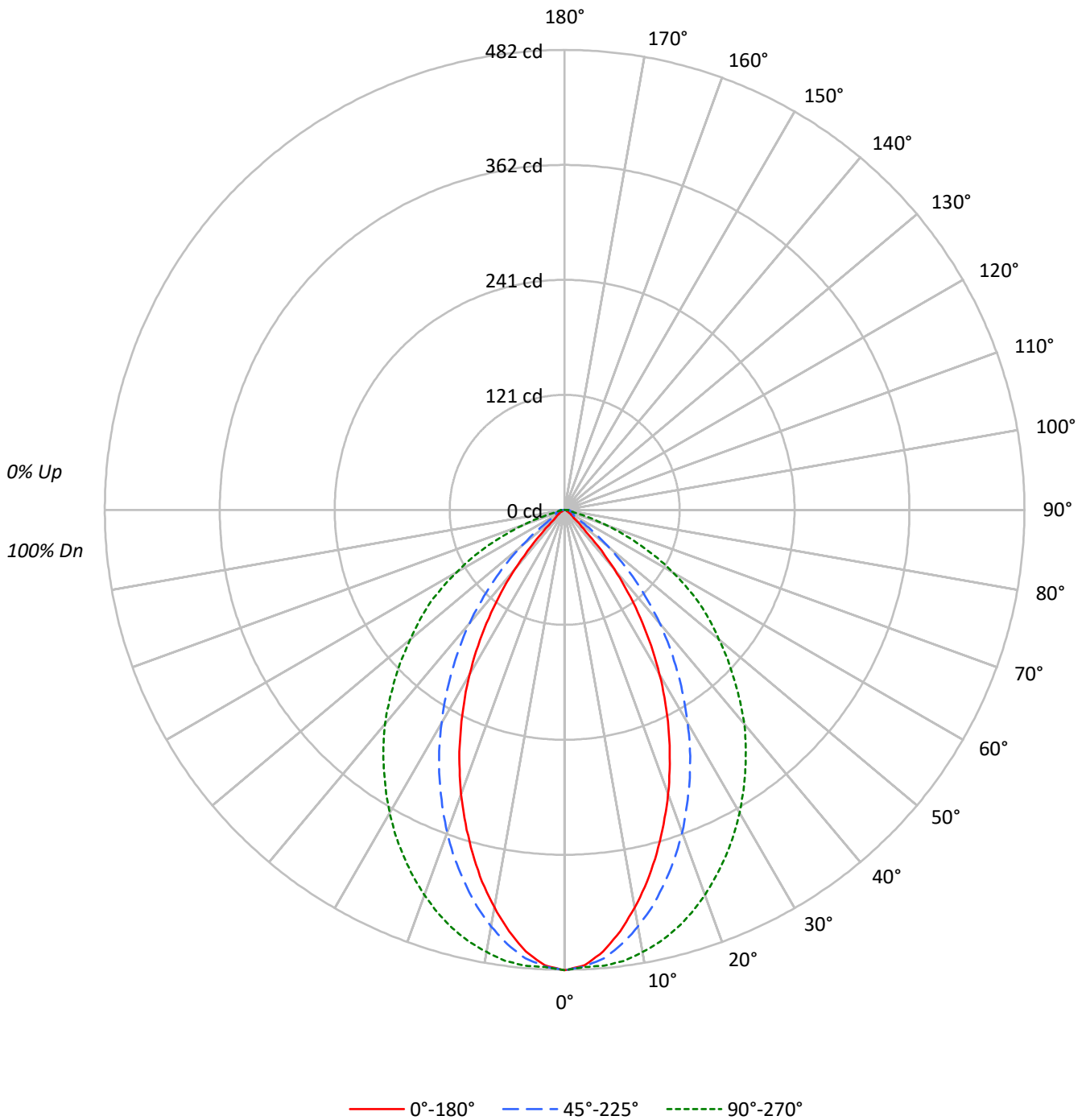
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 620.6 lumens  
Efficiency: N/A  
Efficacy: 35.7 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): 17.4  
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	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90				
2	105	98	93	89	102	97	92	88	93	89	86	90	87	84	87	85	82	81				
3	98	90	83	78	95	88	82	78	85	80	76	83	79	75	80	77	74	72				
4	91	82	75	70	89	81	74	69	78	73	68	76	71	68	74	70	67	65				
5	85	75	68	63	84	74	67	62	72	66	62	70	65	61	69	64	61	59				
6	80	69	62	57	78	68	62	57	67	61	56	65	60	56	64	59	55	54				
7	75	64	57	52	74	63	56	52	62	56	51	61	55	51	59	54	51	49				
8	71	60	52	47	69	59	52	47	58	52	47	57	51	47	55	50	47	45				
9	67	55	48	44	66	55	48	44	54	48	44	53	47	43	52	47	43	42				
10	63	52	45	41	62	51	45	40	50	44	40	50	44	40	49	44	40	39				

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

	0°	45°	90°
0°	3322	3322	3322
5°	3212	3261	3314
10°	2958	3099	3290
15°	2656	2885	3236
20°	2325	2638	3148
25°	1964	2357	3038
30°	1583	2050	2915
35°	1163	1728	2777
40°	726	1394	2633
45°	272	1019	2447
50°	127	636	2259
55°	92	264	2090
60°	66	139	1808
65°	39	165	1432
70°	36	191	910
75°	48	189	285
80°	71	234	210
85°	142	379	284

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 2447 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	44.2	7.1
10°-20°	114.5	18.5
20°-30°	145.9	23.5
30°-40°	135.8	21.9
40°-50°	93.1	15.0
50°-60°	51.2	8.3
60°-70°	24.3	3.9
70°-80°	7.6	1.2
80°-90°	3.9	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°	304.7	49.1
0°-40°	440.5	71.0
0°-60°	584.8	94.2
0°-90°	620.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	620.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	482	482	482	482	482	
5°	465	471	472	475	480	43
15°	373	384	405	435	454	104
25°	258	274	310	360	400	118
35°	138	158	206	273	330	86
45°	28	47	105	185	251	27
55°	8	9	22	103	174	7
65°	2	3	10	38	88	3
75°	2	3	7	8	11	2
85°	2	4	5	4	4	2
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	482.5	482.5	482.5	482.5	482.5
2.5°	477.7	482.5	478.9	478.9	479.5
5°	464.7	470.6	471.8	475.4	479.5
7.5°	445.7	453.4	459.3	469.4	476.6
10°	423.1	432.6	443.3	459.9	470.6
12.5°	399.3	409.4	425.5	448.6	463.5
15°	372.6	384.4	404.7	435.0	454.0
17.5°	345.2	358.3	383.3	418.9	442.7
20°	317.3	331.0	360.1	399.9	429.6
22.5°	288.2	303.0	335.1	380.3	415.3
25°	258.5	274.5	310.2	360.1	399.9
27.5°	228.8	245.4	284.6	339.3	383.9
30°	199.1	216.3	257.9	317.9	366.6
32.5°	168.8	187.8	231.7	296.5	348.8
35°	138.4	158.1	205.6	273.3	330.4
37.5°	108.7	128.9	180.0	251.3	312.0
40°	80.8	101.0	155.1	229.4	292.9
42.5°	52.3	73.7	128.9	206.8	272.1
45°	27.9	46.9	104.6	185.4	251.3
47.5°	14.9	25.0	81.4	164.0	231.7
50°	11.9	13.7	59.4	142.6	210.9
52.5°	9.5	10.7	38.0	120.6	192.5
55°	7.7	8.9	22.0	103.4	174.1
57.5°	5.9	7.1	12.5	86.2	152.7
60°	4.8	5.3	10.1	68.9	131.3
62.5°	3.0	4.2	10.1	53.5	109.9
65°	2.4	3.0	10.1	38.0	87.9
67.5°	2.4	2.4	10.1	25.0	66.0
70°	1.8	1.8	9.5	16.0	45.2
72.5°	1.8	1.8	8.3	10.7	26.1
75°	1.8	3.0	7.1	7.7	10.7
77.5°	1.8	4.8	6.5	6.5	5.9
80°	1.8	4.8	5.9	5.3	5.3
82.5°	1.8	4.8	4.8	4.8	4.2
85°	1.8	4.2	4.8	4.2	3.6
87.5°	1.8	4.2	4.2	4.2	2.4
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	13.22	14.50	13.58	14.82	15.13
	3H	0.00	0.00	0.00	0.00	0.00	14.01	15.14	14.39	15.47	15.84
	4H	0.00	0.00	0.00	0.00	0.00	14.03	15.09	14.43	15.44	15.82
	6H	0.00	0.00	0.00	0.00	0.00	13.99	14.96	14.40	15.33	15.72
	8H	0.00	0.00	0.00	0.00	0.00	13.96	14.88	14.39	15.27	15.68
	12H	0.00	0.00	0.00	0.00	0.06	13.95	14.82	14.38	15.21	15.64
4H	2H	0.00	0.00	0.00	0.00	0.00	13.00	14.06	13.40	14.41	14.79
	3H	0.00	0.00	0.00	0.00	0.00	13.83	14.69	14.24	15.10	15.50
	4H	0.00	0.00	0.00	0.00	0.11	13.86	14.63	14.30	15.05	15.50
	6H	0.00	0.66	0.46	1.10	1.57	13.85	14.51	14.31	14.96	15.43
	8H	0.74	1.36	1.21	1.81	2.28	13.83	14.45	14.30	14.90	15.37
	12H	1.49	2.04	1.98	2.52	2.99	13.84	14.38	14.32	14.87	15.34
8H	4H	0.50	1.12	0.97	1.57	2.04	13.75	14.37	14.22	14.82	15.29
	6H	2.27	2.77	2.77	3.27	3.75	13.75	14.25	14.25	14.75	15.23
	8H	3.23	3.69	3.76	4.20	4.70	13.76	14.21	14.28	14.73	15.22
	12H	4.18	4.58	4.69	5.07	5.65	13.80	14.20	14.32	14.70	15.27
12H	4H	0.80	1.35	1.29	1.83	2.31	13.71	14.25	14.19	14.74	15.21
	6H	2.72	3.18	3.25	3.70	4.19	13.70	14.16	14.23	14.67	15.17
	8H	3.87	4.27	4.39	4.77	5.34	13.74	14.15	14.26	14.64	15.21