

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: P1062112

Luminaire Tested: S125RDR-H610D850-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1062112  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-47)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S125RDR-H610D850-X4F0-XX-UDD-SVL-B  
Description: DEFINE 5 BLACK REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 5000K CCT, 80 CRI LEDS  
Ballast/Driver: -

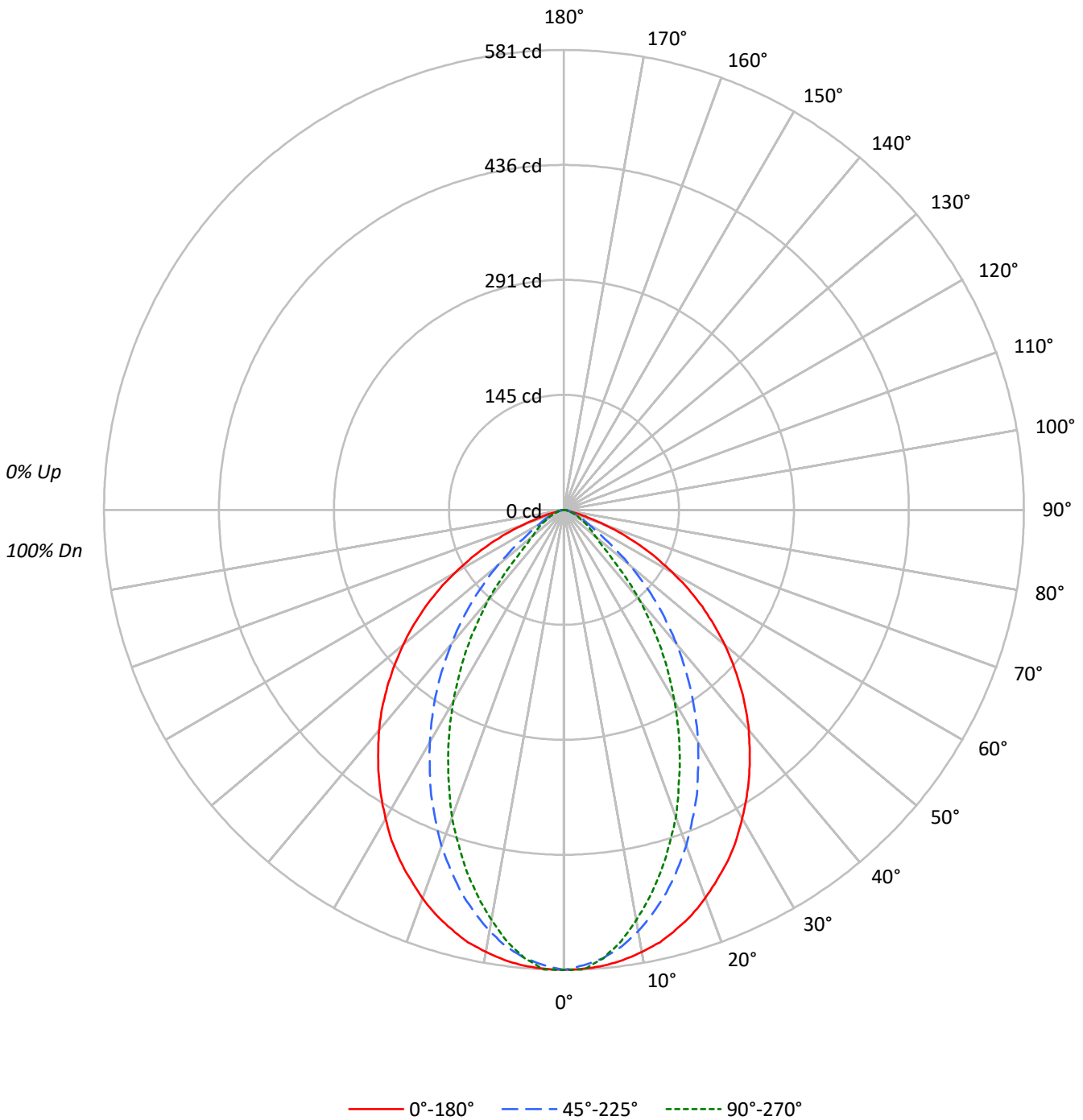
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 840.4 lumens  
Efficiency: N/A  
Efficacy: 48.3 lumens/watt  
Spacing Criteria (0/90/45): 1.16 / 0.85 / 1.01  
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	97	98	96	95	95	93	92	90				
2	104	98	93	88	102	96	91	87	93	89	85	90	86	83	87	84	82	80				
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	79	73	68	77	71	67	75	70	66	73	69	65	63				
5	84	74	66	61	82	73	66	61	71	65	60	69	64	59	67	63	59	57				
6	79	68	60	55	77	67	60	55	65	59	54	64	58	54	62	57	53	52				
7	74	62	55	50	72	62	55	50	60	54	49	59	53	49	58	53	49	47				
8	69	58	50	45	68	57	50	45	56	50	45	55	49	45	54	48	45	43				
9	65	54	47	42	64	53	46	42	52	46	41	51	45	41	50	45	41	39				
10	62	50	43	38	61	50	43	38	49	43	38	48	42	38	47	42	38	36				

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

	0°	45°	90°
0°	4001	4001	4001
5°	3996	3929	3929
10°	3965	3779	3681
15°	3910	3568	3374
20°	3825	3311	3030
25°	3719	3018	2631
30°	3581	2694	2219
35°	3432	2359	1800
40°	3265	1991	1334
45°	3070	1596	805
50°	2840	1171	554
55°	2562	718	461
60°	2176	487	366
65°	1720	373	288
70°	1085	268	238
75°	354	197	197
80°	119	147	174
85°	55	118	118

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 3070 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	53.7	6.4
10°-20°	141.9	16.9
20°-30°	186.7	22.2
30°-40°	183.4	21.8
40°-50°	138.8	16.5
50°-60°	84.1	10.0
60°-70°	39.7	4.7
70°-80°	10.4	1.2
80°-90°	1.6	0.2
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°	382.4	45.5
0°-40°	565.8	67.3
0°-60°	788.7	93.9
0°-90°	840.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	840.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	581	581	581	581	581	
5°	578	577	568	569	568	55
15°	549	534	501	481	473	155
25°	490	453	397	360	346	225
35°	408	354	281	231	214	255
45°	315	248	164	104	83	243
55°	213	146	60	41	38	190
65°	106	54	23	19	18	104
75°	13	9	7	7	7	21
85°	1	1	2	2	2	1
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	581.1	581.1	581.1	581.1	581.1
2.5°	580.4	580.4	575.9	581.1	581.1
5°	578.1	576.7	568.5	569.3	568.5
7.5°	573.7	570.8	556.7	553.0	550.1
10°	567.1	561.2	540.5	531.6	526.5
12.5°	559.7	549.4	521.3	508.7	500.6
15°	548.6	533.8	500.6	481.4	473.3
17.5°	536.8	515.4	476.3	453.4	443.0
20°	522.0	496.9	451.9	423.8	413.5
22.5°	505.8	476.3	423.8	392.8	378.8
25°	489.5	452.6	397.2	360.3	346.3
27.5°	471.1	429.0	367.0	328.6	313.1
30°	450.4	405.4	338.9	299.0	279.1
32.5°	429.7	381.0	309.4	265.8	245.9
35°	408.3	353.7	280.6	231.1	214.1
37.5°	385.4	327.8	251.0	199.4	179.4
40°	363.3	302.0	221.5	166.9	148.4
42.5°	339.7	276.2	192.0	135.1	114.4
45°	315.3	248.1	163.9	104.1	82.7
47.5°	290.2	223.0	135.9	76.8	62.0
50°	265.1	196.4	109.3	56.9	51.7
52.5°	239.2	170.6	82.7	47.3	45.0
55°	213.4	146.2	59.8	40.6	38.4
57.5°	186.8	119.6	45.0	34.7	32.5
60°	158.0	96.0	35.4	28.8	26.6
62.5°	131.4	75.3	28.8	23.6	22.2
65°	105.6	53.9	22.9	19.2	17.7
67.5°	79.0	36.2	17.7	14.8	14.8
70°	53.9	23.6	13.3	11.8	11.8
72.5°	32.5	14.0	9.6	9.6	9.6
75°	13.3	8.9	7.4	7.4	7.4
77.5°	4.4	5.2	5.2	5.9	5.9
80°	3.0	3.0	3.7	4.4	4.4
82.5°	1.5	2.2	2.2	3.0	3.0
85°	0.7	0.7	1.5	1.5	1.5
87.5°	0.0	0.0	0.0	0.7	0.7
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	14.15	15.48	14.51	15.79	16.10	4.80	6.13	5.17	6.45	6.76
	3H	14.85	16.03	15.23	16.36	16.72	5.58	6.76	5.96	7.09	7.46
	4H	14.87	15.96	15.27	16.31	16.70	5.83	6.93	6.24	7.28	7.66
	6H	14.80	15.80	15.21	16.17	16.57	6.01	7.02	6.43	7.39	7.78
	8H	14.76	15.71	15.19	16.10	16.51	6.06	7.01	6.49	7.40	7.81
	12H	14.72	15.63	15.15	16.01	16.44	6.07	6.98	6.50	7.36	7.79
4H	2H	13.98	15.07	14.38	15.42	15.81	5.29	6.39	5.69	6.74	7.12
	3H	14.72	15.61	15.14	16.02	16.42	6.20	7.09	6.61	7.49	7.90
	4H	14.74	15.54	15.18	15.96	16.40	6.51	7.31	6.95	7.73	8.17
	6H	14.68	15.36	15.14	15.81	16.28	6.77	7.45	7.23	7.90	8.37
	8H	14.63	15.27	15.10	15.71	16.19	6.84	7.48	7.31	7.92	8.39
	12H	14.58	15.15	15.07	15.63	16.11	6.86	7.43	7.35	7.91	8.38
8H	4H	14.62	15.26	15.09	15.71	16.18	6.63	7.26	7.09	7.71	8.18
	6H	14.55	15.07	15.05	15.57	16.05	6.94	7.46	7.44	7.96	8.44
	8H	14.50	14.96	15.02	15.48	15.97	7.05	7.51	7.57	8.03	8.52
	12H	14.45	14.87	14.97	15.36	15.93	7.11	7.53	7.63	8.02	8.59
12H	4H	14.58	15.14	15.07	15.63	16.10	6.60	7.16	7.08	7.64	8.12
	6H	14.49	14.96	15.01	15.47	15.97	6.91	7.38	7.43	7.89	8.39
	8H	14.46	14.87	14.97	15.36	15.93	7.05	7.47	7.57	7.96	8.53