

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: P1062110

Luminaire Tested: S125RDR-H610D850-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

**Test Information**

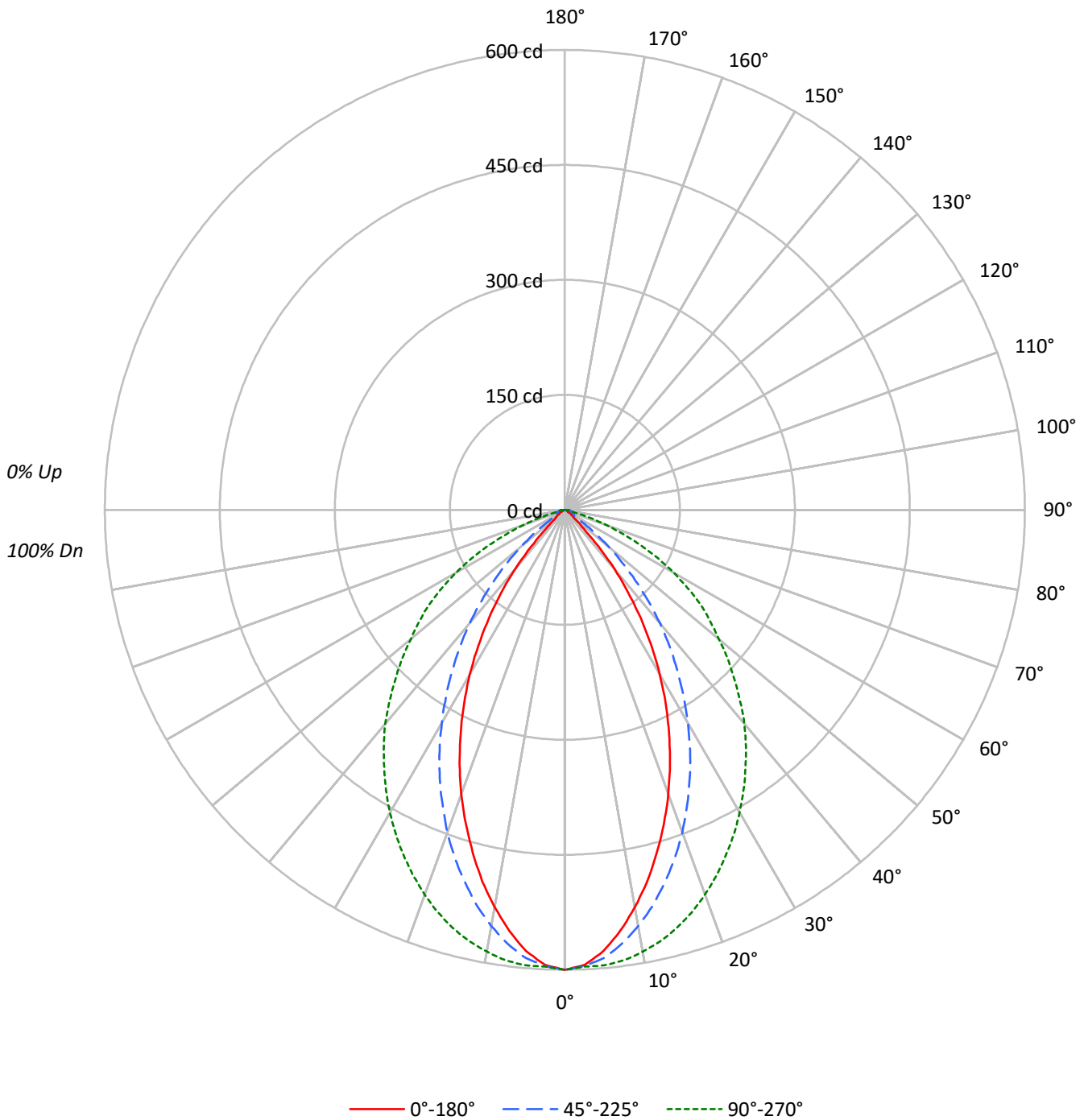
Test Method: LM-79-2019  
Report Number: P1062110  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-87)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S125RDR-H610D850-X4F0-XX-UDD-BVL-S  
Description: DEFINE 5 SILVER REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 5000K CCT, 80 CRI LEDS  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 771.8 lumens  
Efficiency: N/A  
Efficacy: 44.4 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			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°	4132	4132	4132
5°	3994	4056	4122
10°	3679	3854	4092
15°	3303	3588	4025
20°	2891	3281	3915
25°	2442	2931	3778
30°	1969	2550	3625
35°	1447	2149	3454
40°	903	1734	3274
45°	338	1267	3044
50°	159	792	2810
55°	115	328	2599
60°	81	174	2249
65°	49	205	1782
70°	44	238	1131
75°	59	237	354
80°	87	293	266
85°	174	466	348

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 3044 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	55.0	7.1
10°-20°	142.5	18.5
20°-30°	181.5	23.5
30°-40°	168.9	21.9
40°-50°	115.7	15.0
50°-60°	63.7	8.3
60°-70°	30.2	3.9
70°-80°	9.5	1.2
80°-90°	4.9	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°	378.9	49.1
0°-40°	547.9	71.0
0°-60°	727.3	94.2
0°-90°	771.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	771.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	600	600	600	600	600	
5°	578	585	587	591	596	53
15°	463	478	503	541	565	129
25°	322	341	386	448	497	147
35°	172	197	256	340	411	107
45°	35	58	130	231	313	33
55°	10	11	27	129	216	9
65°	3	4	13	47	109	3
75°	2	4	9	10	13	2
85°	2	5	6	5	4	2
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	600.1	600.1	600.1	600.1	600.1
2.5°	594.2	600.1	595.6	595.6	596.4
5°	577.9	585.3	586.8	591.2	596.4
7.5°	554.2	563.9	571.2	583.8	592.7
10°	526.2	538.0	551.3	572.0	585.3
12.5°	496.6	509.2	529.1	557.9	576.4
15°	463.4	478.1	503.3	540.9	564.6
17.5°	429.4	445.6	476.7	521.0	550.6
20°	394.6	411.6	447.8	497.3	534.3
22.5°	358.4	376.9	416.8	473.0	516.6
25°	321.5	341.4	385.8	447.8	497.3
27.5°	284.5	305.2	354.0	422.0	477.4
30°	247.6	269.0	320.7	395.4	456.0
32.5°	209.9	233.5	288.2	368.8	433.8
35°	172.2	196.6	255.7	339.9	410.9
37.5°	135.2	160.4	223.9	312.6	388.0
40°	100.5	125.6	192.9	285.3	364.3
42.5°	65.0	91.6	160.4	257.2	338.5
45°	34.7	58.4	130.1	230.6	312.6
47.5°	18.5	31.0	101.2	204.0	288.2
50°	14.8	17.0	73.9	177.4	262.3
52.5°	11.8	13.3	47.3	150.0	239.4
55°	9.6	11.1	27.3	128.6	216.5
57.5°	7.4	8.9	15.5	107.2	189.9
60°	5.9	6.7	12.6	85.7	163.3
62.5°	3.7	5.2	12.6	66.5	136.7
65°	3.0	3.7	12.6	47.3	109.4
67.5°	3.0	3.0	12.6	31.0	82.0
70°	2.2	2.2	11.8	20.0	56.2
72.5°	2.2	2.2	10.3	13.3	32.5
75°	2.2	3.7	8.9	9.6	13.3
77.5°	2.2	5.9	8.1	8.1	7.4
80°	2.2	5.9	7.4	6.7	6.7
82.5°	2.2	5.9	5.9	5.9	5.2
85°	2.2	5.2	5.9	5.2	4.4
87.5°	2.2	5.2	5.2	5.2	3.0
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	0.00	0.00	0.00	0.00	0.00	13.98	15.26	14.34	15.57	15.89
	3H	0.00	0.00	0.00	0.00	0.00	14.76	15.90	15.14	16.23	16.59
	4H	0.00	0.00	0.00	0.00	0.00	14.79	15.85	15.19	16.20	16.58
	6H	0.00	0.00	0.00	0.00	0.00	14.74	15.72	15.16	16.09	16.48
	8H	0.00	0.00	0.00	0.00	0.05	14.72	15.64	15.15	16.03	16.44
	12H	0.00	0.00	0.00	0.34	0.77	14.70	15.58	15.14	15.96	16.39
4H	2H	0.00	0.00	0.00	0.00	0.00	13.76	14.82	14.16	15.17	15.55
	3H	0.00	0.00	0.00	0.00	0.31	14.59	15.45	15.00	15.85	16.26
	4H	0.00	0.01	0.00	0.43	0.87	14.62	15.39	15.06	15.81	16.25
	6H	0.72	1.38	1.18	1.83	2.30	14.61	15.27	15.07	15.72	16.19
	8H	1.45	2.07	1.92	2.52	2.99	14.59	15.21	15.06	15.66	16.13
	12H	2.19	2.74	2.68	3.22	3.70	14.59	15.14	15.08	15.62	16.10
8H	4H	1.27	1.89	1.74	2.34	2.81	14.51	15.13	14.98	15.57	16.05
	6H	3.01	3.51	3.51	4.01	4.49	14.51	15.01	15.01	15.51	15.99
	8H	3.95	4.41	4.48	4.93	5.42	14.51	14.97	15.04	15.48	15.98
	12H	4.89	5.29	5.41	5.79	6.36	14.56	14.96	15.08	15.46	16.03
12H	4H	1.57	2.12	2.06	2.60	3.08	14.46	15.01	14.95	15.49	15.97
	6H	3.47	3.92	3.99	4.44	4.93	14.46	14.92	14.99	15.43	15.93
	8H	4.59	4.99	5.11	5.49	6.06	14.50	14.90	15.02	15.40	15.97