

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: P1062224

Luminaire Tested: S125RDR-H850D935-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1062224  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-85)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S125RDR-H850D935-X4F0-XX-UDD-WVL-S  
Description: DEFINE 5 SILVER REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 3500K CCT, 90 CRI LEDS  
Ballast/Driver: -

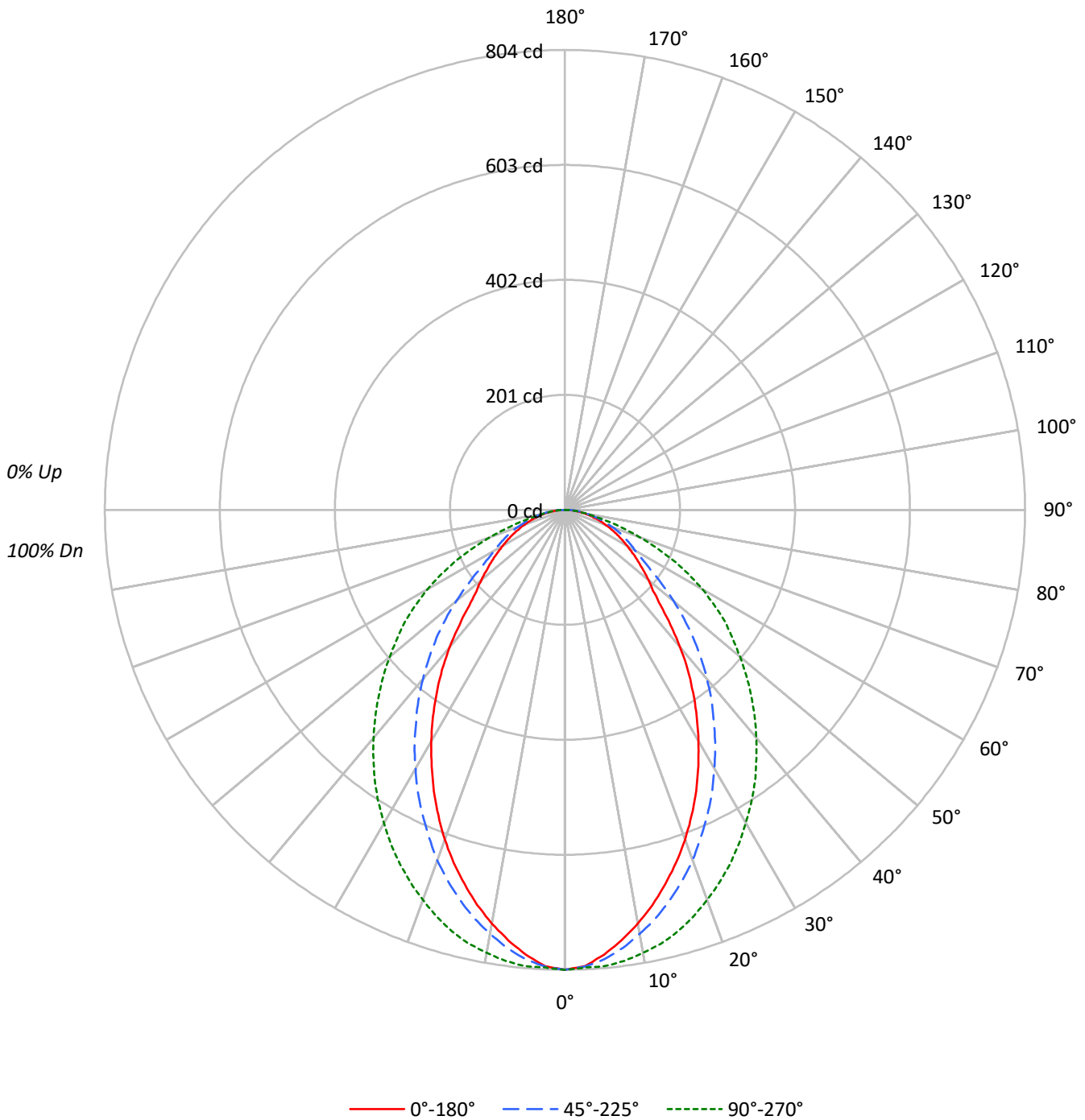
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1507.2 lumens  
Efficiency: N/A  
Efficacy: 64.1 lumens/watt  
Spacing Criteria (0/90/45): 0.94 / 1.18 / 1.12  
Luminous Opening: Rectangular (W 0.39' 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				
1	110	106	102	99	107	104	100	97	99	97	94	96	93	91	92	90	88	86				
2	101	94	88	83	99	92	86	82	89	84	80	85	81	78	82	79	76	74				
3	93	84	76	71	91	82	75	70	79	74	69	77	72	68	74	70	66	64				
4	86	75	67	61	84	74	67	61	72	65	60	69	64	59	67	62	58	56				
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50				
6	74	62	54	48	72	61	53	48	59	52	47	58	52	47	56	51	46	44				
7	69	57	49	43	68	56	48	43	54	47	42	53	47	42	52	46	42	40				
8	65	52	44	39	63	52	44	39	50	43	38	49	43	38	48	42	38	36				
9	61	48	41	35	59	48	40	35	47	40	35	46	39	35	45	39	35	33				
10	57	45	37	32	56	44	37	32	43	37	32	42	36	32	42	36	32	30				

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

	0°	45°	90°
0°	5536	5536	5536
5°	5396	5451	5535
10°	5132	5262	5497
15°	4826	5038	5439
20°	4496	4779	5320
25°	4119	4472	5186
30°	3710	4151	5025
35°	3281	3814	4868
40°	2815	3472	4678
45°	2299	3090	4481
50°	2039	2650	4276
55°	1870	2198	4098
60°	1725	1947	3816
65°	1610	1872	3402
70°	1504	1780	2780
75°	1389	1665	2051
80°	1305	1562	1499
85°	1209	1525	1272

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 4481 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	74.4	4.9
10°-20°	200.4	13.3
20°-30°	275.4	18.3
30°-40°	291.9	19.4
40°-50°	254.8	16.9
50°-60°	193.6	12.8
60°-70°	129.7	8.6
70°-80°	66.9	4.4
80°-90°	20.1	1.3
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	36.5
0°-40°	842.2	55.9
0°-60°	1290.6	85.6
0°-90°	1507.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1507.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	804	804	804	804	804	
5°	781	789	789	794	801	73
15°	677	690	707	738	763	190
25°	542	559	589	638	683	249
35°	390	413	454	518	579	243
45°	236	259	317	393	460	186
55°	156	161	183	269	341	140
65°	99	101	115	153	209	98
75°	52	55	63	67	77	56
85°	15	19	19	18	16	17
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	804.0	804.0	804.0	804.0	804.0
2.5°	798.4	804.0	799.2	799.2	800.8
5°	780.7	788.7	788.7	794.4	800.8
7.5°	759.0	767.9	772.7	785.5	795.2
10°	734.1	743.8	752.6	771.9	786.3
12.5°	707.6	718.1	731.7	756.6	776.7
15°	677.1	689.9	706.8	738.1	763.0
17.5°	646.6	659.4	680.3	717.3	745.4
20°	613.6	627.3	652.2	692.4	726.1
22.5°	578.3	593.6	620.1	665.8	705.2
25°	542.2	559.0	588.7	637.7	682.7
27.5°	504.4	524.5	556.6	608.8	658.6
30°	466.7	486.7	522.1	579.1	632.1
32.5°	428.9	450.6	489.1	549.4	606.4
35°	390.4	412.8	453.8	518.1	579.1
37.5°	352.6	375.1	420.9	487.5	549.4
40°	313.2	336.5	386.3	456.2	520.5
42.5°	273.1	298.0	351.8	424.1	490.8
45°	236.1	259.4	317.3	392.8	460.2
47.5°	208.8	224.1	282.7	360.6	430.5
50°	190.4	198.4	247.4	329.3	399.2
52.5°	171.9	178.3	214.5	297.2	369.5
55°	155.8	160.6	183.1	269.1	341.4
57.5°	139.8	144.6	159.0	241.0	308.4
60°	125.3	129.3	141.4	211.2	277.1
62.5°	111.6	114.9	127.7	183.1	243.4
65°	98.8	101.2	114.9	153.4	208.8
67.5°	85.9	88.4	102.0	125.3	171.9
70°	74.7	75.5	88.4	102.0	138.1
72.5°	63.5	64.3	74.7	82.7	106.0
75°	52.2	55.4	62.6	66.7	77.1
77.5°	42.6	46.6	50.6	52.2	52.2
80°	32.9	37.8	39.4	39.4	37.8
82.5°	24.1	28.1	28.9	27.3	25.7
85°	15.3	19.3	19.3	17.7	16.1
87.5°	7.2	10.4	10.4	9.6	7.2
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	12.55	14.05	12.92	14.36	14.68	16.48	17.98	16.85	18.29	18.61
	3H	14.12	15.47	14.50	15.79	16.16	17.90	19.24	18.28	19.57	19.93
	4H	14.74	16.00	15.14	16.35	16.72	18.32	19.58	18.72	19.92	20.30
	6H	15.23	16.40	15.65	16.76	17.15	18.53	19.70	18.95	20.06	20.46
	8H	15.41	16.51	15.83	16.90	17.30	18.59	19.70	19.02	20.09	20.49
	12H	15.53	16.59	15.96	16.97	17.40	18.63	19.69	19.06	20.07	20.50
4H	2H	13.29	14.55	13.69	14.90	15.28	16.61	17.87	17.01	18.21	18.59
	3H	15.07	16.11	15.48	16.51	16.92	18.22	19.26	18.63	19.66	20.06
	4H	15.80	16.75	16.24	17.16	17.60	18.74	19.68	19.18	20.10	20.54
	6H	16.44	17.26	16.90	17.70	18.16	19.09	19.90	19.54	20.35	20.81
	8H	16.67	17.43	17.13	17.88	18.35	19.19	19.95	19.65	20.39	20.86
	12H	16.84	17.53	17.33	18.00	18.48	19.26	19.94	19.74	20.42	20.89
8H	4H	16.20	16.97	16.67	17.41	17.88	18.85	19.61	19.31	20.06	20.53
	6H	16.99	17.62	17.49	18.12	18.59	19.29	19.92	19.79	20.41	20.89
	8H	17.32	17.88	17.83	18.39	18.88	19.45	20.01	19.96	20.52	21.01
	12H	17.59	18.09	18.10	18.58	19.15	19.58	20.08	20.09	20.58	21.14
12H	4H	16.25	16.93	16.73	17.41	17.88	18.85	19.53	19.33	20.01	20.48
	6H	17.07	17.64	17.59	18.15	18.64	19.30	19.87	19.82	20.38	20.87
	8H	17.47	17.97	17.98	18.46	19.03	19.51	20.01	20.02	20.51	21.07