

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: P1062223

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

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1062223  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-46)  
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-B  
Description: DEFINE 5 BLACK REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 3500K CCT, 90 CRI LEDS  
Ballast/Driver: -

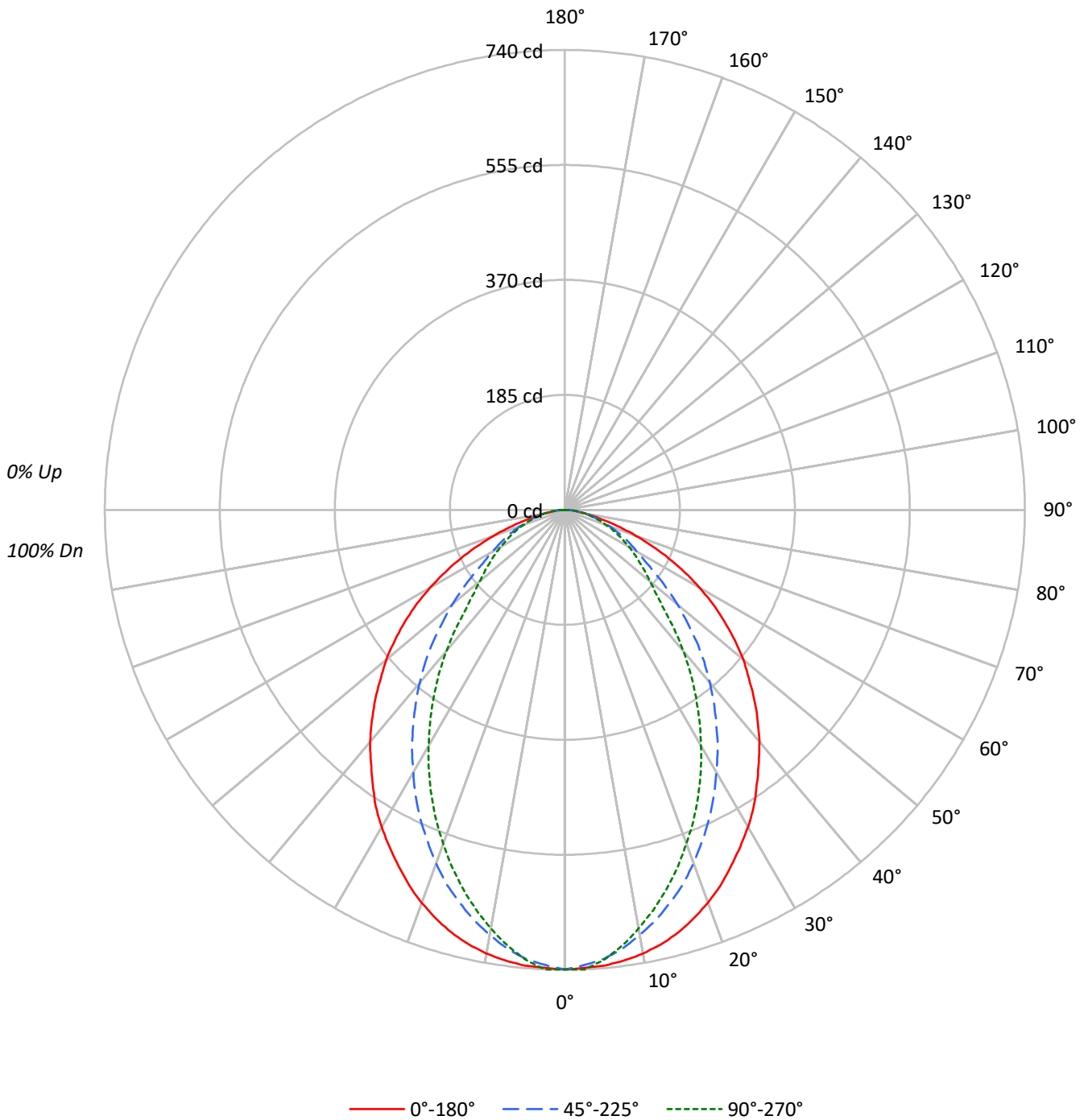
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1400.7 lumens  
Efficiency: N/A  
Efficacy: 59.6 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 0.95 / 1.11  
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			100	
1	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87			87	
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	75			75	
3	93	84	77	71	91	82	76	70	80	74	69	77	72	68	74	70	67	65			65	
4	86	76	68	61	84	74	67	61	72	65	60	70	64	59	67	63	59	57			57	
5	80	68	60	54	78	67	59	54	65	58	53	63	57	53	61	56	52	50			50	
6	74	62	54	48	73	61	53	48	59	53	47	58	52	47	56	51	47	45			45	
7	69	57	49	43	68	56	48	43	55	48	43	53	47	42	52	46	42	40			40	
8	65	52	44	39	63	52	44	39	50	43	39	49	43	38	48	42	38	36			36	
9	61	48	41	35	60	48	40	35	47	40	35	46	39	35	45	39	35	33			33	
10	57	45	37	32	56	44	37	32	43	37	32	42	36	32	42	36	32	30			30	

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

	0°	45°	90°
0°	5091	5091	5091
5°	5088	5010	5021
10°	5068	4855	4782
15°	5019	4664	4504
20°	4930	4435	4188
25°	4806	4172	3855
30°	4685	3874	3485
35°	4528	3576	3091
40°	4380	3262	2662
45°	4198	2915	2181
50°	4016	2528	1909
55°	3768	2110	1763
60°	3438	1847	1647
65°	3007	1688	1530
70°	2440	1520	1421
75°	1750	1389	1325
80°	1209	1241	1241
85°	885	1074	1145

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 4198 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	68.7	4.9
10°-20°	185.9	13.3
20°-30°	257.0	18.3
30°-40°	273.8	19.5
40°-50°	240.5	17.2
50°-60°	182.3	13.0
60°-70°	118.4	8.5
70°-80°	58.7	4.2
80°-90°	15.3	1.1
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°	511.7	36.5
0°-40°	785.4	56.1
0°-60°	1208.3	86.3
0°-90°	1400.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1400.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	739	739	739	739	739	
5°	736	735	725	727	726	70
15°	704	688	654	639	632	198
25°	633	598	549	521	507	291
35°	539	489	426	387	368	337
45°	431	371	299	246	224	332
55°	314	252	176	152	147	280
65°	185	137	104	96	94	182
75°	66	58	52	51	50	73
85°	11	13	14	14	14	14
90°	0	0	0	0	0	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	739.4	739.4	739.4	739.4	739.4
2.5°	737.8	739.4	733.0	738.6	740.2
5°	736.2	734.6	724.9	727.3	726.5
7.5°	731.4	728.2	712.1	710.5	707.3
10°	724.9	716.9	694.4	688.8	684.0
12.5°	716.1	703.3	676.0	664.7	659.1
15°	704.1	688.0	654.3	639.0	631.8
17.5°	689.6	667.1	631.8	610.9	602.9
20°	672.8	646.3	605.3	581.2	571.6
22.5°	654.3	623.0	577.2	551.5	541.1
25°	632.6	598.1	549.1	521.0	507.4
27.5°	610.9	572.4	519.4	488.1	473.7
30°	589.3	545.1	487.3	453.6	438.3
32.5°	566.0	517.0	457.6	420.7	403.0
35°	538.7	488.9	425.5	387.0	367.7
37.5°	512.2	459.2	394.2	350.8	332.4
40°	487.3	431.1	362.9	315.5	296.2
42.5°	459.2	401.4	331.6	281.8	260.1
45°	431.1	370.9	299.4	245.7	224.0
47.5°	401.4	342.0	265.7	212.7	198.3
50°	374.9	312.3	236.0	187.9	178.2
52.5°	344.4	283.4	205.5	168.6	162.2
55°	313.9	252.1	175.8	151.7	146.9
57.5°	282.6	224.0	152.5	137.3	132.5
60°	249.7	195.1	134.1	122.0	119.6
62.5°	216.8	165.4	118.0	109.2	106.0
65°	184.6	137.3	103.6	95.5	93.9
67.5°	151.7	111.6	89.1	83.5	82.7
70°	121.2	90.7	75.5	72.3	70.6
72.5°	93.1	72.3	63.4	61.0	60.2
75°	65.8	57.8	52.2	50.6	49.8
77.5°	44.2	44.2	41.7	40.1	40.9
80°	30.5	32.1	31.3	31.3	31.3
82.5°	20.1	21.7	22.5	22.5	22.5
85°	11.2	12.8	13.6	13.6	14.5
87.5°	4.0	4.8	5.6	6.4	6.4
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	16.21	17.70	16.57	18.01	18.33	12.45	13.94	12.82	14.26	14.57
	3H	17.52	18.86	17.90	19.18	19.55	14.03	15.37	14.41	15.70	16.06
	4H	17.89	19.14	18.29	19.49	19.87	14.64	15.89	15.04	16.24	16.62
	6H	18.06	19.22	18.48	19.59	19.98	15.11	16.26	15.52	16.63	17.02
	8H	18.10	19.20	18.53	19.59	19.99	15.27	16.37	15.69	16.76	17.16
	12H	18.11	19.17	18.54	19.55	19.98	15.38	16.43	15.81	16.81	17.24
4H	2H	16.32	17.57	16.72	17.92	18.30	13.11	14.36	13.51	14.71	15.09
	3H	17.81	18.84	18.22	19.25	19.65	14.89	15.93	15.30	16.33	16.73
	4H	18.28	19.22	18.72	19.63	20.07	15.61	16.54	16.04	16.96	17.40
	6H	18.57	19.38	19.03	19.82	20.28	16.20	17.01	16.66	17.45	17.91
	8H	18.64	19.39	19.10	19.84	20.31	16.40	17.16	16.87	17.61	18.07
	12H	18.68	19.35	19.16	19.83	20.30	16.56	17.24	17.04	17.71	18.19
8H	4H	18.36	19.12	18.83	19.57	20.03	15.92	16.68	16.39	17.12	17.59
	6H	18.73	19.35	19.23	19.85	20.32	16.63	17.25	17.13	17.74	18.22
	8H	18.85	19.41	19.36	19.92	20.40	16.91	17.47	17.42	17.98	18.47
	12H	18.93	19.43	19.44	19.92	20.49	17.14	17.63	17.65	18.12	18.69
12H	4H	18.36	19.03	18.84	19.51	19.99	15.95	16.62	16.43	17.10	17.57
	6H	18.73	19.29	19.25	19.80	20.29	16.68	17.24	17.19	17.75	18.24
	8H	18.89	19.39	19.40	19.88	20.45	17.02	17.51	17.53	18.00	18.57