

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: P1062241

Luminaire Tested: S125RDR-H850D950-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1062241  
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-H850D950-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: 5000K CCT, 90 CRI LEDS  
Ballast/Driver: -

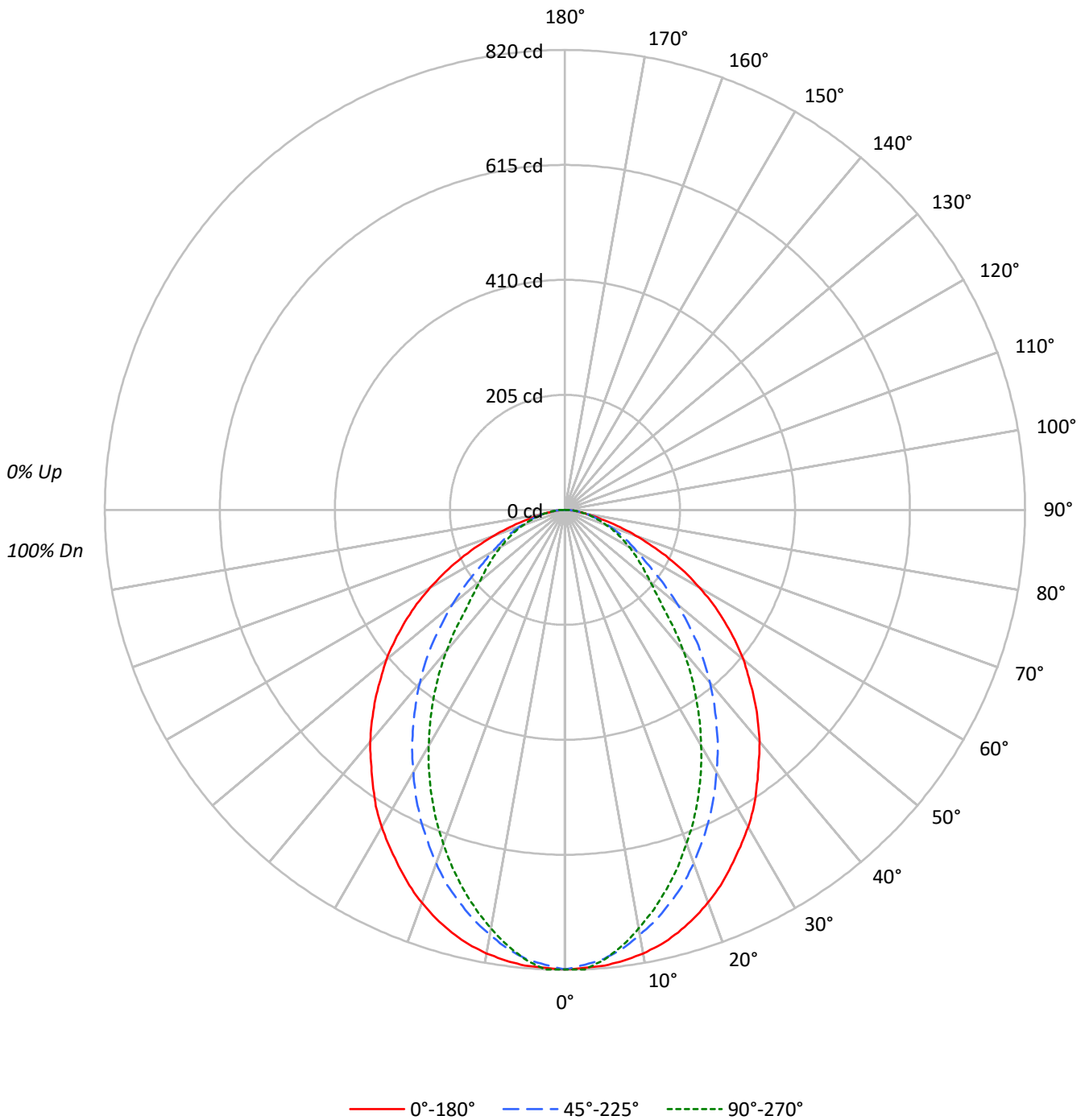
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1552.0 lumens  
Efficiency: N/A  
Efficacy: 66.0 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°	5641	5641	5641
5°	5638	5551	5564
10°	5616	5379	5299
15°	5561	5168	4990
20°	5462	4914	4640
25°	5325	4622	4271
30°	5191	4292	3862
35°	5017	3963	3424
40°	4853	3614	2950
45°	4651	3231	2417
50°	4450	2801	2116
55°	4175	2338	1954
60°	3809	2046	1825
65°	3333	1869	1696
70°	2704	1683	1576
75°	1939	1538	1468
80°	1340	1376	1376
85°	987	1193	1264

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 4651 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	76.2	4.9
10°-20°	206.0	13.3
20°-30°	284.8	18.3
30°-40°	303.3	19.5
40°-50°	266.4	17.2
50°-60°	202.0	13.0
60°-70°	131.2	8.5
70°-80°	65.0	4.2
80°-90°	17.0	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°	567.0	36.5
0°-40°	870.3	56.1
0°-60°	1338.8	86.3
0°-90°	1552.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1552.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	819	819	819	819	819	
5°	816	814	803	806	805	77
15°	780	762	725	708	700	220
25°	701	663	608	577	562	323
35°	597	542	472	429	407	374
45°	478	411	332	272	248	368
55°	348	279	195	168	163	310
65°	205	152	115	106	104	202
75°	73	64	58	56	55	81
85°	12	14	15	15	16	15
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	819.3	819.3	819.3	819.3	819.3
2.5°	817.5	819.3	812.1	818.4	820.1
5°	815.7	813.9	803.2	805.9	805.0
7.5°	810.4	806.8	789.0	787.2	783.7
10°	803.2	794.3	769.4	763.2	757.9
12.5°	793.5	779.2	749.0	736.5	730.3
15°	780.1	762.3	725.0	708.1	700.1
17.5°	764.1	739.2	700.1	676.9	668.0
20°	745.4	716.1	670.7	644.0	633.3
22.5°	725.0	690.3	639.6	611.1	599.5
25°	700.9	662.7	608.4	577.3	562.2
27.5°	676.9	634.2	575.5	540.8	524.8
30°	652.9	604.0	539.9	502.6	485.7
32.5°	627.1	572.9	507.0	466.1	446.5
35°	596.9	541.7	471.5	428.8	407.4
37.5°	567.5	508.8	436.8	388.7	368.3
40°	539.9	477.7	402.1	349.6	328.2
42.5°	508.8	444.8	367.4	312.2	288.2
45°	477.7	411.0	331.8	272.2	248.2
47.5°	444.8	378.9	294.4	235.7	219.7
50°	415.4	346.0	261.5	208.1	197.5
52.5°	381.6	314.0	227.7	186.8	179.7
55°	347.8	279.3	194.8	168.1	162.8
57.5°	313.1	248.2	169.0	152.1	146.8
60°	276.6	216.2	148.6	135.2	132.5
62.5°	240.2	183.2	130.8	121.0	117.4
65°	204.6	152.1	114.7	105.9	104.1
67.5°	168.1	123.6	98.7	92.5	91.6
70°	134.3	100.5	83.6	80.1	78.3
72.5°	103.2	80.1	70.3	67.6	66.7
75°	72.9	64.0	57.8	56.0	55.2
77.5°	48.9	48.9	46.3	44.5	45.4
80°	33.8	35.6	34.7	34.7	34.7
82.5°	22.2	24.0	24.9	24.9	24.9
85°	12.5	14.2	15.1	15.1	16.0
87.5°	4.4	5.3	6.2	7.1	7.1
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	16.56	18.06	16.93	18.37	18.68	12.81	14.30	13.17	14.61	14.93
	3H	17.87	19.21	18.25	19.54	19.90	14.39	15.73	14.77	16.05	16.42
	4H	18.24	19.50	18.64	19.85	20.23	14.99	16.24	15.39	16.59	16.97
	6H	18.42	19.58	18.83	19.94	20.34	15.46	16.62	15.88	16.99	17.38
	8H	18.46	19.56	18.88	19.95	20.35	15.62	16.72	16.05	17.11	17.52
	12H	18.47	19.52	18.90	19.90	20.33	15.74	16.79	16.17	17.17	17.60
4H	2H	16.68	17.93	17.08	18.28	18.66	13.47	14.72	13.87	15.07	15.45
	3H	18.16	19.20	18.57	19.60	20.00	15.25	16.29	15.66	16.69	17.09
	4H	18.64	19.57	19.07	19.99	20.43	15.97	16.90	16.40	17.32	17.75
	6H	18.92	19.73	19.38	20.18	20.64	16.56	17.37	17.01	17.81	18.27
	8H	18.99	19.75	19.46	20.19	20.66	16.76	17.52	17.22	17.96	18.43
	12H	19.03	19.71	19.52	20.19	20.66	16.92	17.59	17.40	18.07	18.54
8H	4H	18.72	19.48	19.19	19.92	20.39	16.28	17.03	16.74	17.48	17.95
	6H	19.08	19.71	19.58	20.20	20.68	16.98	17.61	17.48	18.10	18.58
	8H	19.20	19.76	19.72	20.27	20.76	17.26	17.82	17.78	18.33	18.82
	12H	19.29	19.78	19.80	20.27	20.84	17.49	17.99	18.00	18.48	19.05
12H	4H	18.71	19.39	19.20	19.87	20.34	16.30	16.98	16.79	17.46	17.93
	6H	19.09	19.65	19.60	20.16	20.65	17.04	17.60	17.55	18.11	18.60
	8H	19.25	19.74	19.76	20.23	20.80	17.37	17.87	17.88	18.36	18.93