

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: P1062186

Luminaire Tested: S125RDR-H850D840-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1062186  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-83)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S125RDR-H850D840-X4F0-XX-UDD-SVL-W  
Description: DEFINE 5 WHITE REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: -

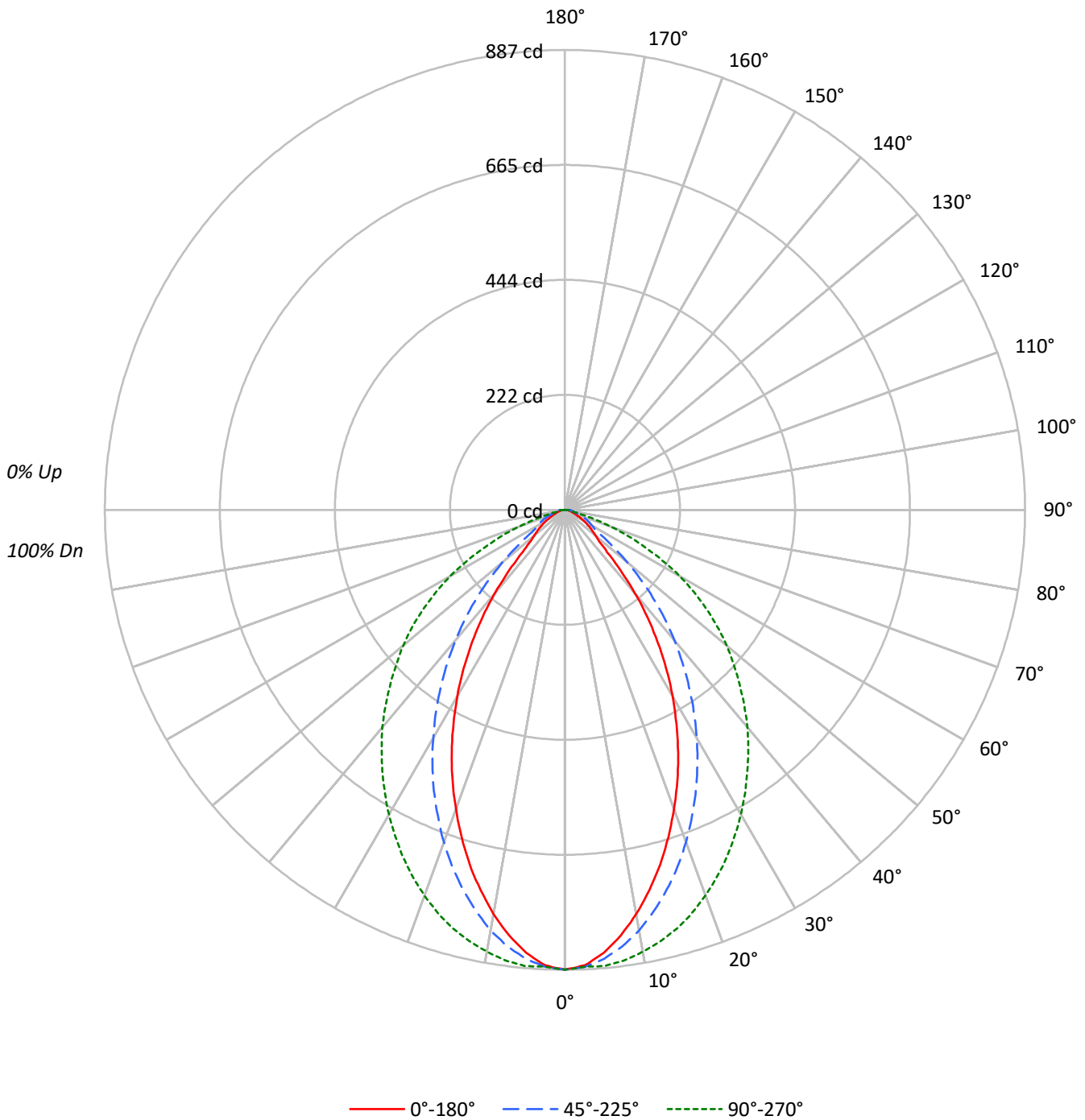
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1284.6 lumens  
Efficiency: N/A  
Efficacy: 54.7 lumens/watt  
Spacing Criteria (0/90/45): 0.83 / 1.15 / 1.02  
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	111	108	104	101	109	105	103	100	101	99	97	98	96	94	94	92	91	89				89
2	104	97	92	87	101	95	90	86	92	88	84	89	85	82	86	83	81	79				79
3	96	88	81	76	94	86	80	76	84	79	74	81	77	73	79	75	72	70				70
4	90	80	73	67	88	79	72	67	76	71	66	74	69	65	72	68	64	62				62
5	84	73	66	60	82	72	65	60	70	64	59	68	63	59	66	62	58	56				56
6	78	67	59	54	77	66	59	54	64	58	53	63	57	53	61	56	53	51				51
7	73	62	54	49	72	61	54	49	60	53	49	58	53	48	57	52	48	46				46
8	69	57	50	45	68	57	50	45	55	49	44	54	48	44	53	48	44	42				42
9	65	53	46	41	64	53	46	41	52	45	41	51	45	41	50	44	40	39				39
10	61	50	43	38	60	49	42	38	48	42	38	47	42	38	46	41	37	36				36

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

	0°	45°	90°
0°	6106	6106	6106
5°	5927	6005	6104
10°	5535	5759	6049
15°	5052	5408	5958
20°	4503	4999	5801
25°	3924	4539	5613
30°	3297	4039	5395
35°	2622	3509	5157
40°	1889	2948	4922
45°	1120	2340	4634
50°	828	1666	4361
55°	701	1030	3994
60°	571	830	3517
65°	445	767	2779
70°	378	664	1860
75°	351	577	753
80°	373	599	523
85°	450	893	592

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 4634 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	81.7	6.4
10°-20°	214.7	16.7
20°-30°	280.6	21.8
30°-40°	273.3	21.3
40°-50°	205.0	16.0
50°-60°	128.5	10.0
60°-70°	66.9	5.2
70°-80°	24.2	1.9
80°-90°	9.6	0.7
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°	577.0	44.9
0°-40°	850.3	66.2
0°-60°	1183.9	92.2
0°-90°	1284.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1284.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	887	887	887	887	887	
5°	858	869	869	876	883	80
15°	709	730	759	806	836	198
25°	516	545	598	679	739	236
35°	312	345	418	529	614	194
45°	115	149	240	371	476	97
55°	58	61	86	224	333	52
65°	27	29	47	90	171	28
75°	13	18	22	23	28	14
85°	6	9	11	10	8	6
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	886.8	886.8	886.8	886.8	886.8
2.5°	879.3	887.8	882.1	882.1	882.1
5°	857.6	868.9	868.9	875.5	883.1
7.5°	827.5	840.7	849.1	865.2	876.5
10°	791.7	807.7	823.7	850.1	865.2
12.5°	751.1	770.0	792.6	829.4	852.0
15°	708.7	729.5	758.7	805.8	835.9
17.5°	662.5	687.0	721.9	778.5	815.2
20°	614.5	639.0	682.3	746.4	791.7
22.5°	566.4	592.8	639.9	712.5	766.2
25°	516.5	544.7	597.5	678.6	738.9
27.5°	465.6	494.8	553.2	643.7	708.7
30°	414.7	444.8	508.0	606.0	678.6
32.5°	363.8	395.8	462.7	567.4	646.5
35°	311.9	344.9	417.5	528.7	613.5
37.5°	262.0	295.0	372.3	489.1	580.5
40°	210.2	246.0	328.0	449.5	547.6
42.5°	159.3	196.0	283.7	410.0	511.7
45°	115.0	148.9	240.3	371.3	475.9
47.5°	88.6	107.4	196.0	331.7	441.1
50°	77.3	82.9	155.5	295.0	407.1
52.5°	66.9	70.7	116.9	261.1	370.4
55°	58.4	61.3	85.8	224.3	332.7
57.5°	49.0	52.8	67.9	188.5	294.0
60°	41.5	43.4	60.3	155.5	255.4
62.5°	33.9	35.8	53.7	122.5	212.1
65°	27.3	29.2	47.1	90.5	170.6
67.5°	22.6	23.6	39.6	64.1	131.0
70°	18.8	19.8	33.0	44.3	92.4
72.5°	16.0	18.8	26.4	32.0	58.4
75°	13.2	17.9	21.7	22.6	28.3
77.5°	11.3	17.0	17.9	17.9	16.0
80°	9.4	14.1	15.1	14.1	13.2
82.5°	7.5	11.3	12.3	12.3	10.4
85°	5.7	9.4	11.3	10.4	7.5
87.5°	3.8	8.5	9.4	8.5	5.7
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	6.21	7.56	6.57	7.87	8.19	15.82	17.17	16.18	17.48	17.80
	3H	7.06	8.26	7.44	8.59	8.96	16.66	17.86	17.04	18.19	18.55
	4H	7.49	8.61	7.89	8.96	9.34	16.73	17.85	17.14	18.20	18.58
	6H	7.91	8.94	8.33	9.31	9.71	16.71	17.74	17.13	18.11	18.51
	8H	8.09	9.07	8.52	9.46	9.86	16.70	17.68	17.13	18.07	18.47
	12H	8.25	9.19	8.69	9.57	10.00	16.69	17.62	17.12	18.01	18.44
4H	2H	7.17	8.29	7.57	8.64	9.02	15.68	16.80	16.08	17.15	17.53
	3H	8.22	9.14	8.63	9.54	9.94	16.59	17.51	17.00	17.91	18.31
	4H	8.78	9.60	9.22	10.02	10.46	16.69	17.51	17.13	17.93	18.37
	6H	9.38	10.09	9.84	10.53	11.00	16.72	17.43	17.18	17.87	18.34
	8H	9.62	10.28	10.09	10.72	11.20	16.72	17.38	17.19	17.83	18.30
	12H	9.84	10.43	10.33	10.91	11.38	16.73	17.32	17.22	17.80	18.27
8H	4H	9.25	9.91	9.72	10.36	10.83	16.62	17.28	17.09	17.72	18.19
	6H	10.07	10.61	10.57	11.10	11.58	16.67	17.21	17.17	17.71	18.19
	8H	10.44	10.93	10.96	11.44	11.94	16.70	17.19	17.23	17.70	18.20
	12H	10.84	11.27	11.35	11.76	12.33	16.77	17.20	17.28	17.69	18.26
12H	4H	9.30	9.89	9.79	10.37	10.85	16.58	17.17	17.07	17.65	18.12
	6H	10.19	10.67	10.71	11.19	11.68	16.64	17.12	17.16	17.64	18.13
	8H	10.68	11.11	11.19	11.60	12.17	16.71	17.14	17.22	17.63	18.20