

Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



Scaled data based on original data using  
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1175435

Luminaire Tested: S125RDRP-H850D940-X4F0-XX-UDD-WVL-W

Issue Date: 8/18/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1175435  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-82)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/18/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S125RDRP-H850D940-X4F0-XX-UDD-WVL-W  
Description: DEFINE 5 WHITE REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: -

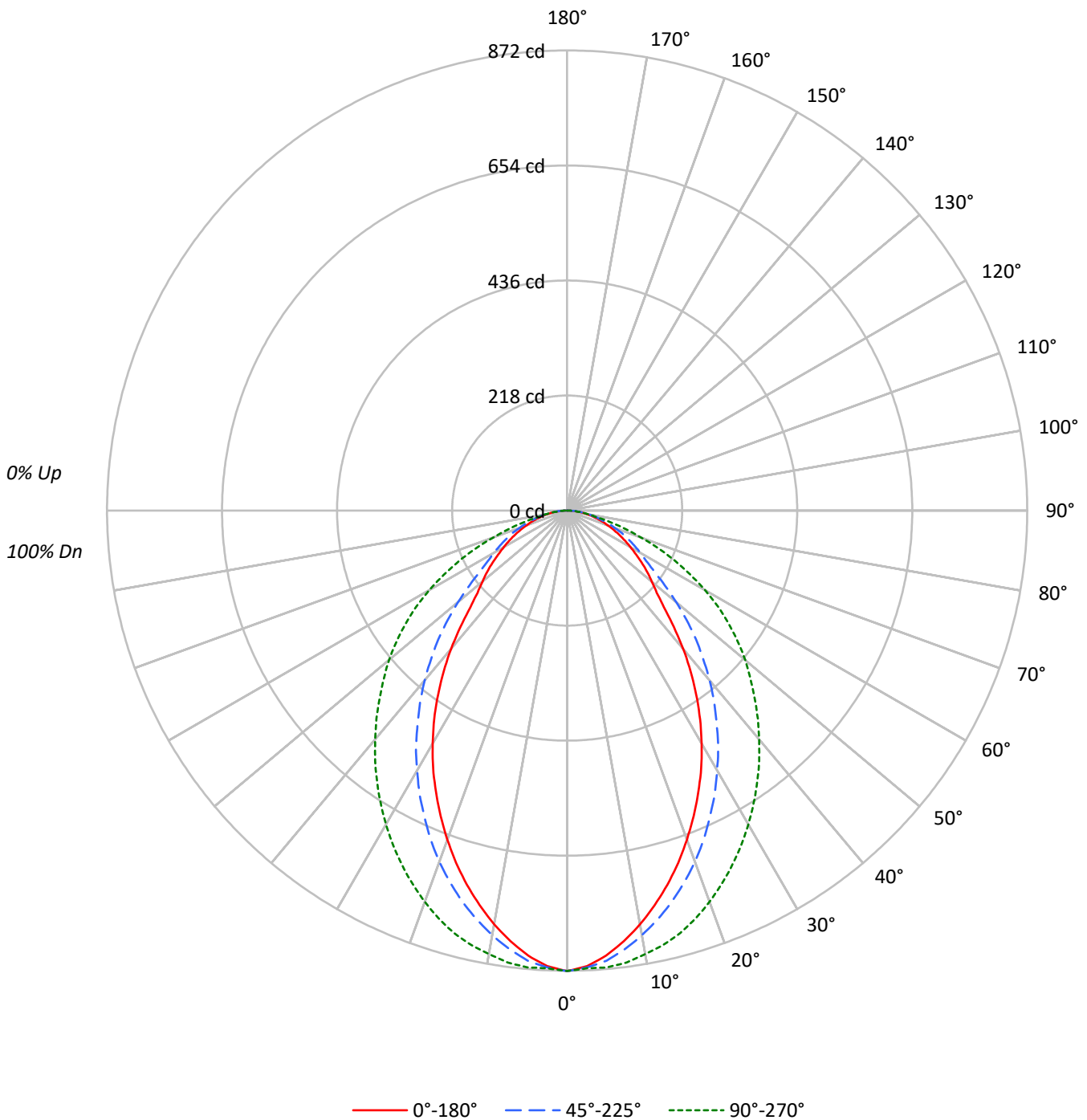
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1643.7 lumens  
Efficiency: N/A  
Efficacy: 69.9 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 (A<sub>in</sub>): 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	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	73	69	77	72	68	74	70	66	64
4	86	75	67	61	84	74	66	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	47	59	52	47	58	51	47	56	51	46	44
7	69	57	48	43	68	56	48	43	54	47	42	53	47	42	52	46	42	40
8	65	52	44	39	63	51	44	39	50	43	38	49	43	38	48	42	38	36
9	61	48	40	35	59	48	40	35	46	40	35	45	39	35	44	39	35	33
10	57	45	37	32	56	44	37	32	43	37	32	42	36	32	41	36	32	30

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

	0°	45°	90°
0°	6007	6007	6007
5°	5851	5918	6005
10°	5567	5711	5965
15°	5232	5469	5908
20°	4862	5188	5780
25°	4468	4861	5627
30°	4052	4517	5459
35°	3586	4152	5279
40°	3076	3774	5086
45°	2524	3360	4890
50°	2245	2888	4721
55°	2072	2419	4481
60°	1907	2203	4150
65°	1774	2076	3669
70°	1655	1939	2998
75°	1556	1793	2245
80°	1467	1645	1614
85°	1343	1635	1343

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 4890 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	80.8	4.9
10°-20°	217.7	13.2
20°-30°	299.5	18.2
30°-40°	317.7	19.3
40°-50°	278.0	16.9
50°-60°	213.4	13.0
60°-70°	142.1	8.6
70°-80°	72.9	4.4
80°-90°	21.6	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°	598.0	36.4
0°-40°	915.7	55.7
0°-60°	1407.1	85.6
0°-90°	1643.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1643.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	872	872	872	872	872	
5°	847	858	856	862	869	79
15°	734	751	767	804	829	206
25°	588	608	640	694	741	270
35°	427	447	494	567	628	266
45°	259	281	345	431	502	205
55°	173	176	202	299	373	155
65°	109	110	127	167	225	108
75°	58	62	67	71	84	62
85°	17	19	21	20	17	19
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	872.5	872.5	872.5	872.5	872.5
2.5°	864.3	873.2	866.6	867.3	868.0
5°	846.6	857.7	856.2	862.1	868.8
7.5°	822.9	834.7	838.4	853.2	863.6
10°	796.2	809.5	816.9	839.2	853.2
12.5°	765.8	781.4	793.2	822.1	842.9
15°	734.0	751.0	767.3	803.6	828.8
17.5°	699.9	717.0	738.4	779.9	810.3
20°	663.6	682.1	708.1	752.5	788.8
22.5°	626.6	645.8	675.5	724.4	765.8
25°	588.1	608.1	639.9	694.0	740.7
27.5°	550.3	568.8	605.9	663.6	714.7
30°	509.6	528.8	568.1	631.8	686.6
32.5°	468.8	488.1	533.3	599.9	657.7
35°	426.6	446.6	494.0	566.6	628.1
37.5°	384.4	405.1	457.7	532.5	597.7
40°	342.2	364.4	419.9	498.5	565.9
42.5°	299.2	322.9	381.4	465.1	534.8
45°	259.2	280.7	345.1	431.1	502.2
47.5°	230.3	242.9	306.6	396.2	471.1
50°	209.6	215.5	269.6	362.9	440.7
52.5°	191.1	194.8	233.3	331.8	407.4
55°	172.6	176.3	201.5	299.2	373.3
57.5°	154.8	157.0	177.8	266.6	339.2
60°	138.5	140.0	160.0	234.0	301.4
62.5°	123.7	124.4	142.9	200.7	263.7
65°	108.9	109.6	127.4	167.4	225.2
67.5°	95.5	95.5	112.6	137.0	188.1
70°	82.2	82.2	96.3	111.1	148.9
72.5°	70.4	71.8	81.5	89.6	116.3
75°	58.5	62.2	67.4	71.1	84.4
77.5°	47.4	51.8	54.1	55.5	56.3
80°	37.0	40.0	41.5	42.2	40.7
82.5°	27.4	29.6	30.4	30.4	28.1
85°	17.0	19.3	20.7	20.0	17.0
87.5°	8.1	11.1	11.9	10.4	8.1
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	12.84	14.34	13.21	14.66	14.97	16.87	18.37	17.23	18.68	19.00
	3H	14.43	15.77	14.81	16.10	16.46	18.26	19.60	18.63	19.93	20.29
	4H	15.07	16.33	15.47	16.68	17.06	18.66	19.92	19.06	20.27	20.65
	6H	15.58	16.75	16.00	17.11	17.51	18.87	20.03	19.28	20.40	20.79
	8H	15.76	16.87	16.19	17.26	17.66	18.93	20.03	19.35	20.42	20.82
	12H	15.89	16.95	16.32	17.33	17.76	18.96	20.02	19.39	20.40	20.83
4H	2H	13.61	14.87	14.01	15.22	15.60	17.00	18.26	17.40	18.61	18.99
	3H	15.40	16.44	15.81	16.84	17.24	18.57	19.62	18.98	20.02	20.42
	4H	16.16	17.11	16.60	17.52	17.96	19.08	20.02	19.51	20.44	20.88
	6H	16.80	17.62	17.26	18.07	18.53	19.40	20.22	19.86	20.67	21.13
	8H	17.03	17.80	17.50	18.24	18.71	19.50	20.27	19.97	20.71	21.18
	12H	17.20	17.89	17.69	18.37	18.84	19.58	20.26	20.06	20.74	21.21
8H	4H	16.55	17.31	17.01	17.76	18.22	19.18	19.94	19.64	20.39	20.86
	6H	17.32	17.96	17.82	18.45	18.93	19.60	20.23	20.09	20.72	21.20
	8H	17.64	18.21	18.16	18.72	19.21	19.76	20.32	20.27	20.83	21.32
	12H	17.90	18.40	18.41	18.90	19.46	19.89	20.40	20.40	20.89	21.45
12H	4H	16.59	17.27	17.07	17.75	18.22	19.18	19.86	19.66	20.34	20.81
	6H	17.40	17.97	17.91	18.48	18.97	19.61	20.18	20.12	20.69	21.18
	8H	17.78	18.28	18.29	18.78	19.34	19.82	20.32	20.33	20.81	21.38