

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: P1061461

Luminaire Tested: S125RDRP-S1090D850-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1061461  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-48)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S125RDRP-S1090D850-X4F0-XX-UDD-BVL-B  
Description: DEFINE 5 BLACK REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 5000K CCT, 80 CRI LEDS  
Ballast/Driver: -

**Summary**

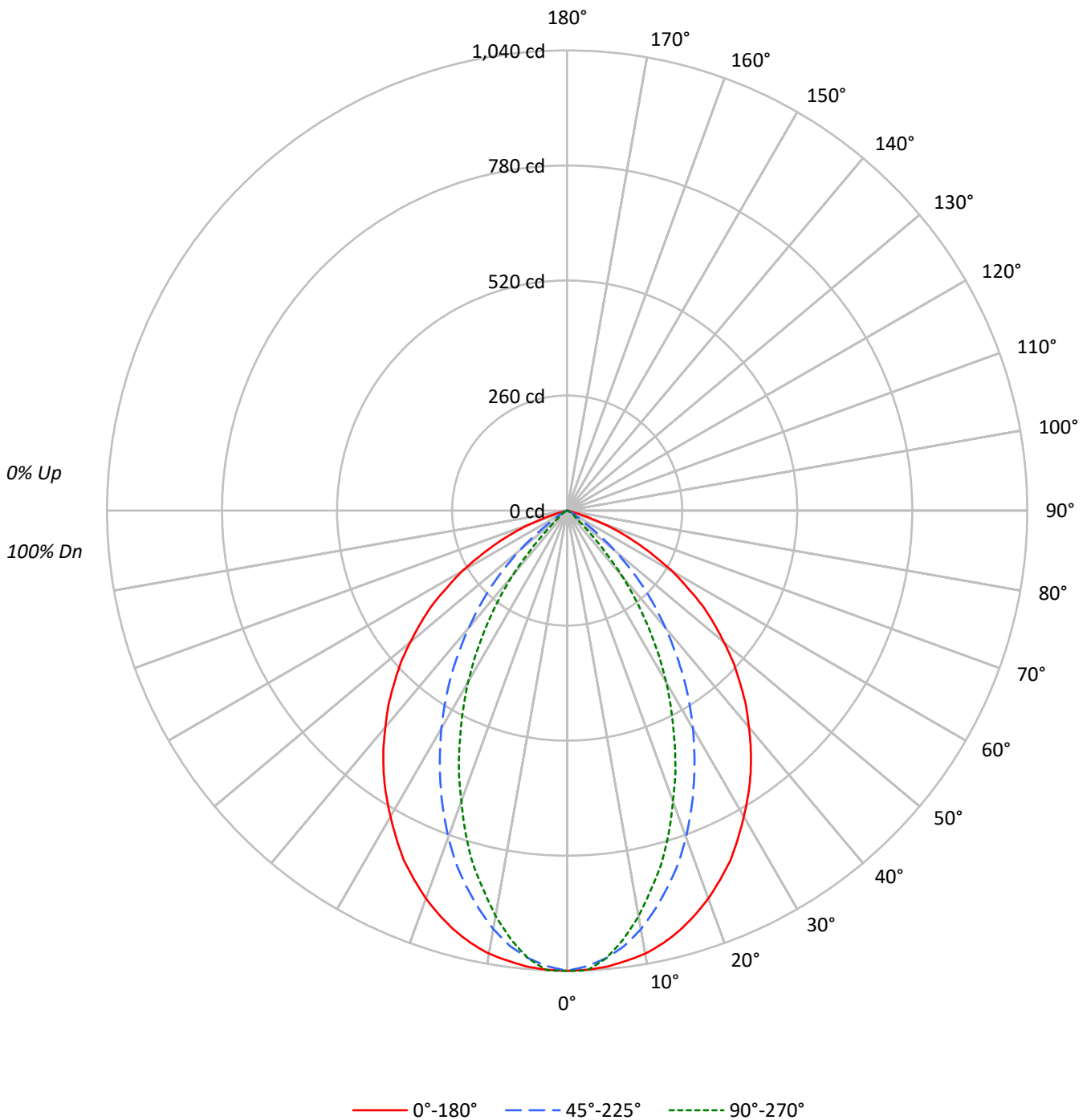
Lumens per Lamp: N/A  
Luminaire Lumens: 1343.7 lumens  
Efficiency: N/A  
Efficacy: 38.4 lumens/watt  
Spacing Criteria (0/90/45): 1.15 / 0.81 / 0.97  
Luminous Opening: Rectangular (W 0.39' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 35  
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	112	109	106	103	110	107	104	102	103	101	99	99	97	96	95	94	93	91
2	105	99	94	90	103	97	93	89	94	90	87	91	88	85	88	86	83	82
3	98	90	84	80	96	89	83	79	86	82	78	84	80	76	81	78	75	73
4	92	83	76	71	90	82	75	70	79	74	70	77	72	69	75	71	68	66
5	86	76	69	64	84	75	68	63	73	67	63	71	66	62	70	65	62	60
6	81	70	63	58	79	69	62	57	67	61	57	66	61	57	65	60	56	54
7	76	65	58	53	74	64	57	52	63	56	52	61	56	52	60	55	51	50
8	71	60	53	48	70	59	53	48	58	52	48	57	52	48	56	51	47	46
9	67	56	49	44	66	55	49	44	54	48	44	53	48	44	52	47	44	42
10	64	52	46	41	62	52	45	41	51	45	41	50	45	41	49	44	41	39

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

	0°	45°	90°
0°	7161	7161	7161
5°	7151	7018	7018
10°	7109	6715	6504
15°	7003	6270	5879
20°	6837	5751	5117
25°	6630	5150	4358
30°	6349	4517	3556
35°	6078	3852	2664
40°	5747	3108	1727
45°	5385	2352	748
50°	4953	1500	280
55°	4464	659	198
60°	3779	284	132
65°	2861	179	67
70°	1739	83	28
75°	364	37	37
80°	0	0	0
85°	0	0	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 5385 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	95.9	7.1
10°-20°	249.9	18.6
20°-30°	320.9	23.9
30°-40°	302.1	22.5
40°-50°	211.2	15.7
50°-60°	112.8	8.4
60°-70°	45.0	3.3
70°-80°	5.8	0.4
80°-90°	0.0	0.0
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°	666.7	49.6
0°-40°	968.8	72.1
0°-60°	1292.9	96.2
0°-90°	1343.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1343.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1040	1040	1040	1040	1040	
5°	1035	1032	1015	1018	1015	98
15°	982	951	880	838	825	276
25°	873	796	678	604	574	401
35°	723	608	458	354	317	451
45°	553	414	242	117	77	427
55°	372	228	55	19	16	330
65°	176	70	11	6	4	175
75°	14	4	1	1	1	27
85°	0	0	0	0	0	0
90°	0	0	0	0	0	0



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1040.1	1040.1	1040.1	1040.1	1040.1
2.5°	1038.7	1040.1	1030.5	1038.7	1040.1
5°	1034.6	1031.9	1015.4	1018.2	1015.4
7.5°	1026.4	1019.5	992.1	982.5	977.0
10°	1016.8	1001.7	960.5	939.9	930.3
12.5°	1001.7	979.7	922.1	890.5	876.8
15°	982.5	950.9	879.6	838.4	824.7
17.5°	959.2	918.0	835.7	784.9	764.3
20°	933.1	878.2	784.9	724.5	698.4
22.5°	902.9	839.8	732.7	665.5	639.4
25°	872.7	795.9	677.9	603.8	573.6
27.5°	835.7	750.6	623.0	543.4	510.5
30°	798.6	705.3	568.1	481.6	447.3
32.5°	761.6	657.3	513.2	417.1	382.8
35°	723.1	607.9	458.3	354.0	317.0
37.5°	682.0	558.5	399.3	293.6	255.2
40°	639.4	510.5	345.8	234.6	192.1
42.5°	598.3	462.4	292.3	177.0	130.4
45°	553.0	414.4	241.5	116.6	76.8
47.5°	510.5	367.7	189.4	67.2	39.8
50°	462.4	319.7	140.0	35.7	26.1
52.5°	417.1	273.1	93.3	23.3	20.6
55°	371.9	227.8	54.9	19.2	16.5
57.5°	319.7	183.9	30.2	15.1	12.3
60°	274.4	144.1	20.6	11.0	9.6
62.5°	222.3	105.7	15.1	8.2	6.9
65°	175.6	70.0	11.0	5.5	4.1
67.5°	130.4	41.2	6.9	2.7	2.7
70°	86.4	22.0	4.1	1.4	1.4
72.5°	45.3	9.6	2.7	1.4	1.4
75°	13.7	4.1	1.4	1.4	1.4
77.5°	0.0	1.4	0.0	0.0	1.4
80°	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0
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	15.78	17.05	16.15	17.36	17.68	0.00	0.00	0.00	0.00	0.00
	3H	16.37	17.48	16.75	17.81	18.18	0.00	0.00	0.00	0.00	0.00
	4H	16.33	17.36	16.74	17.72	18.10	0.00	0.00	0.00	0.00	0.00
	6H	16.25	17.19	16.66	17.56	17.96	0.00	0.00	0.00	0.00	0.00
	8H	16.20	17.09	16.63	17.49	17.89	0.00	0.00	0.00	0.00	0.00
	12H	16.16	17.01	16.59	17.39	17.82	0.00	0.00	0.00	0.00	0.00
4H	2H	15.56	16.59	15.96	16.94	17.33	0.00	0.00	0.00	0.00	0.00
	3H	16.15	16.98	16.56	17.39	17.79	0.00	0.00	0.00	0.00	0.00
	4H	16.10	16.84	16.53	17.26	17.71	0.00	0.00	0.00	0.00	0.00
	6H	16.01	16.65	16.48	17.10	17.57	0.00	0.00	0.00	0.00	0.00
	8H	15.95	16.55	16.42	16.99	17.47	0.00	0.00	0.00	0.00	0.00
	12H	15.90	16.42	16.39	16.91	17.38	0.00	0.00	0.00	0.00	0.00
8H	4H	15.95	16.55	16.42	16.99	17.47	0.00	0.00	0.00	0.00	0.00
	6H	15.85	16.33	16.35	16.82	17.31	0.00	0.00	0.00	0.00	0.00
	8H	15.78	16.21	16.30	16.73	17.22	0.00	0.00	0.00	0.00	0.00
	12H	15.73	16.11	16.25	16.61	17.18	0.00	0.00	0.00	0.00	0.00
12H	4H	15.90	16.42	16.39	16.91	17.38	0.00	0.00	0.00	0.00	0.00
	6H	15.78	16.21	16.30	16.73	17.22	0.00	0.00	0.00	0.00	0.00
	8H	15.73	16.11	16.25	16.61	17.18	0.00	0.00	0.00	0.00	0.00