

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: P1062233

Luminaire Tested: S125RDR-H850D940-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1062233  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-85)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S125RDR-H850D940-X4F0-XX-UDD-WVL-S  
Description: DEFINE 5 SILVER REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: -

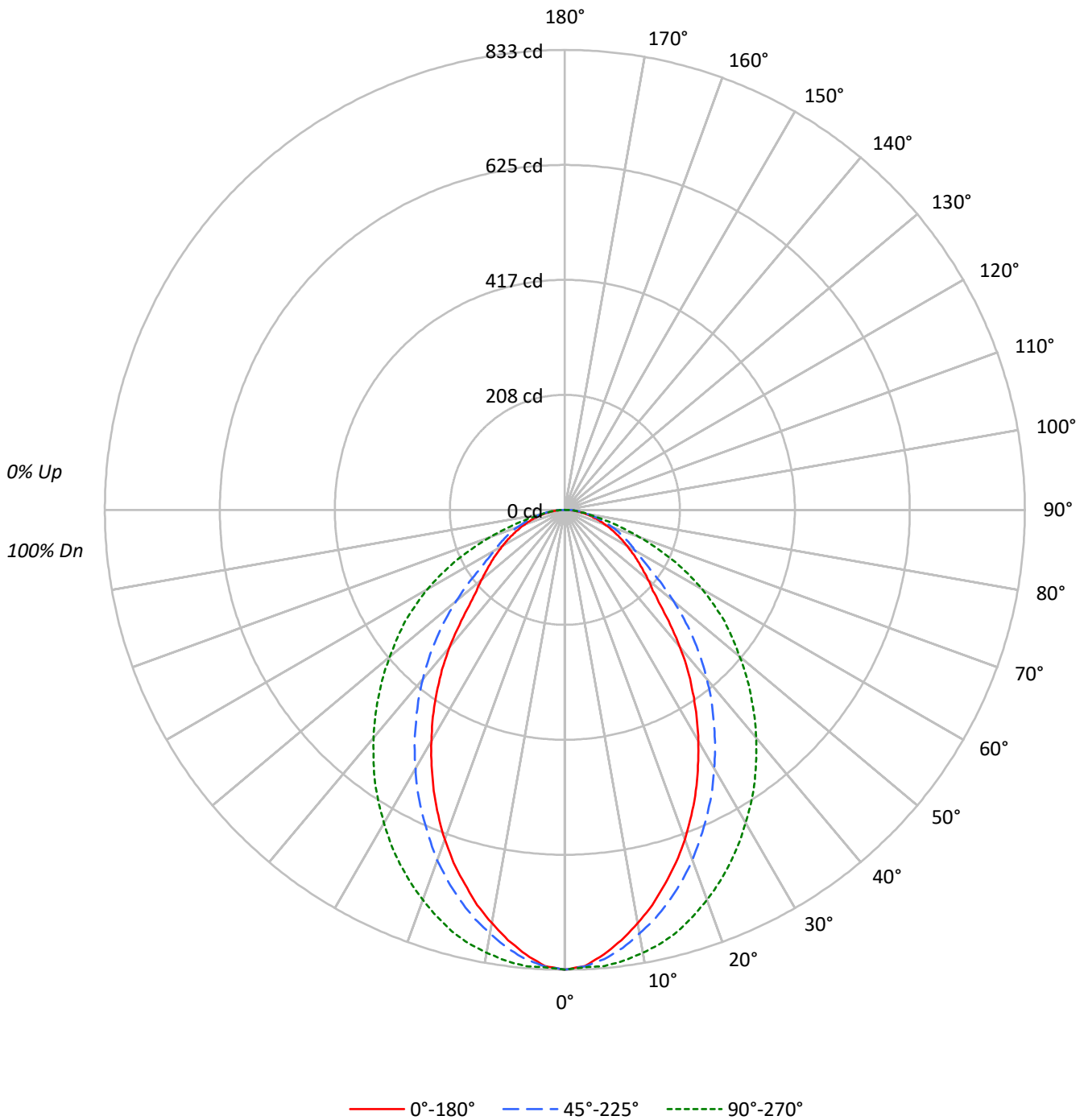
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1561.0 lumens  
Efficiency: N/A  
Efficacy: 66.4 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 (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	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	74	69	77	72	68	74	70	66	64
4	86	75	67	61	84	74	67	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	48	59	52	47	58	52	47	56	51	46	44
7	69	57	49	43	68	56	48	43	54	47	42	53	47	42	52	46	42	40
8	65	52	44	39	63	52	44	39	50	43	38	49	43	38	48	42	38	36
9	61	48	41	35	59	48	40	35	47	40	35	46	39	35	45	39	35	33
10	57	45	37	32	56	44	37	32	43	37	32	42	36	32	42	36	32	30

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

	0°	45°	90°
0°	5733	5733	5733
5°	5589	5646	5732
10°	5316	5449	5694
15°	4998	5218	5633
20°	4656	4949	5510
25°	4266	4632	5372
30°	3842	4299	5205
35°	3398	3951	5042
40°	2916	3596	4845
45°	2382	3200	4641
50°	2111	2744	4428
55°	1937	2277	4243
60°	1787	2016	3952
65°	1667	1939	3524
70°	1558	1842	2881
75°	1439	1727	2126
80°	1352	1618	1550
85°	1248	1580	1311

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 4641 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	77.1	4.9
10°-20°	207.6	13.3
20°-30°	285.3	18.3
30°-40°	302.3	19.4
40°-50°	263.9	16.9
50°-60°	200.5	12.8
60°-70°	134.3	8.6
70°-80°	69.3	4.4
80°-90°	20.8	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°	569.9	36.5
0°-40°	872.2	55.9
0°-60°	1336.6	85.6
0°-90°	1561.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1561.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	833	833	833	833	833	
5°	809	817	817	823	829	76
15°	701	715	732	764	790	197
25°	562	579	610	660	707	257
35°	404	428	470	536	600	252
45°	245	269	329	407	477	193
55°	161	166	190	279	354	145
65°	102	105	119	159	216	102
75°	54	57	65	69	80	58
85°	16	20	20	18	17	18
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	832.7	832.7	832.7	832.7	832.7
2.5°	826.9	832.7	827.7	827.7	829.3
5°	808.6	816.9	816.9	822.7	829.3
7.5°	786.1	795.2	800.2	813.5	823.5
10°	760.3	770.3	779.4	799.4	814.4
12.5°	732.9	743.7	757.8	783.6	804.4
15°	701.2	714.6	732.0	764.5	790.3
17.5°	669.6	682.9	704.6	742.8	772.0
20°	635.5	649.7	675.5	717.1	752.0
22.5°	598.9	614.7	642.2	689.6	730.4
25°	561.5	579.0	609.7	660.5	707.1
27.5°	522.4	543.2	576.5	630.5	682.1
30°	483.3	504.1	540.7	599.8	654.7
32.5°	444.2	466.7	506.6	569.0	628.0
35°	404.3	427.6	470.0	536.5	599.8
37.5°	365.2	388.5	435.9	504.9	569.0
40°	324.4	348.5	400.1	472.5	539.0
42.5°	282.8	308.6	364.3	439.2	508.3
45°	244.6	268.7	328.6	406.8	476.6
47.5°	216.3	232.1	292.8	373.5	445.9
50°	197.1	205.5	256.2	341.1	413.4
52.5°	178.0	184.7	222.1	307.8	382.6
55°	161.4	166.4	189.7	278.7	353.5
57.5°	144.7	149.7	164.7	249.6	319.4
60°	129.8	133.9	146.4	218.8	287.0
62.5°	115.6	119.0	132.3	189.7	252.0
65°	102.3	104.8	119.0	158.9	216.3
67.5°	89.0	91.5	105.6	129.8	178.0
70°	77.4	78.2	91.5	105.6	143.1
72.5°	65.7	66.5	77.4	85.7	109.8
75°	54.1	57.4	64.9	69.0	79.9
77.5°	44.1	48.2	52.4	54.1	54.1
80°	34.1	39.1	40.8	40.8	39.1
82.5°	25.0	29.1	29.9	28.3	26.6
85°	15.8	20.0	20.0	18.3	16.6
87.5°	7.5	10.8	10.8	10.0	7.5
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	12.67	14.17	13.04	14.48	14.80	16.60	18.10	16.97	18.41	18.73
	3H	14.24	15.59	14.62	15.92	16.28	18.02	19.37	18.40	19.69	20.06
	4H	14.86	16.12	15.26	16.47	16.84	18.44	19.70	18.84	20.05	20.43
	6H	15.35	16.52	15.77	16.88	17.27	18.66	19.82	19.07	20.19	20.58
	8H	15.53	16.63	15.95	17.02	17.43	18.71	19.82	19.14	20.21	20.61
	12H	15.65	16.71	16.08	17.09	17.52	18.75	19.81	19.18	20.19	20.62
4H	2H	13.41	14.67	13.81	15.02	15.40	16.73	17.99	17.13	18.34	18.72
	3H	15.19	16.23	15.60	16.63	17.04	18.34	19.38	18.75	19.78	20.18
	4H	15.93	16.87	16.36	17.28	17.72	18.86	19.81	19.30	20.22	20.66
	6H	16.56	17.38	17.02	17.82	18.28	19.21	20.03	19.67	20.47	20.93
	8H	16.79	17.55	17.25	18.00	18.47	19.31	20.07	19.77	20.52	20.98
	12H	16.96	17.65	17.45	18.13	18.60	19.38	20.06	19.86	20.54	21.01
8H	4H	16.33	17.09	16.79	17.53	18.00	18.97	19.74	19.44	20.18	20.65
	6H	17.11	17.74	17.61	18.24	18.71	19.41	20.04	19.91	20.53	21.01
	8H	17.44	18.00	17.95	18.51	19.00	19.57	20.14	20.08	20.65	21.13
	12H	17.71	18.21	18.22	18.70	19.27	19.70	20.21	20.21	20.70	21.26
12H	4H	16.37	17.05	16.85	17.53	18.00	18.97	19.65	19.45	20.13	20.60
	6H	17.19	17.76	17.71	18.27	18.76	19.43	19.99	19.94	20.50	20.99
	8H	17.59	18.09	18.10	18.58	19.15	19.64	20.14	20.15	20.63	21.19