

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: P1061828

Luminaire Tested: S125RDR-S850D940-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1061828  
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-S850D940-X4F0-XX-UDD-WVL-S  
Description: DEFINE 5 SILVER REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: -

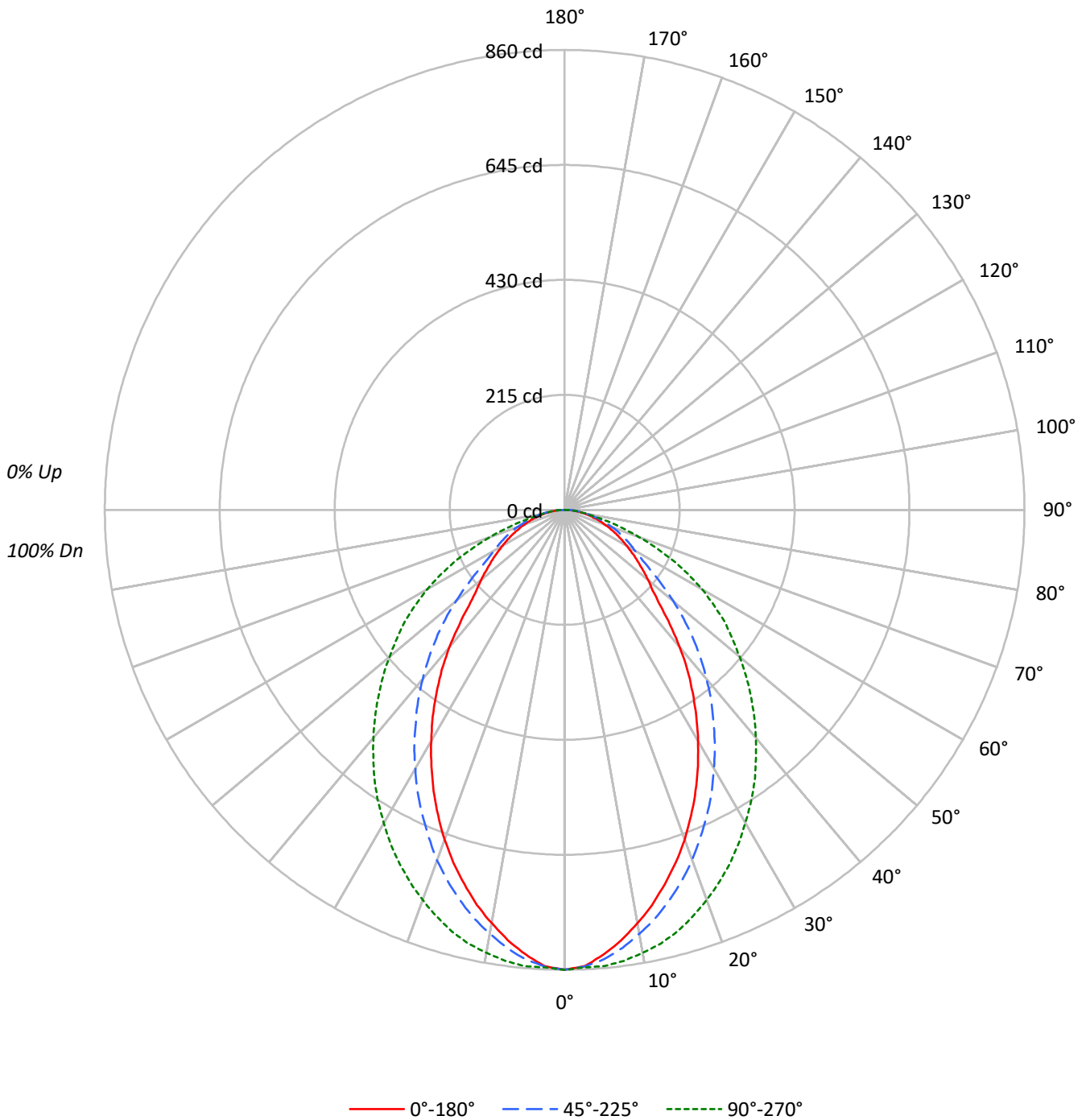
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1612.0 lumens  
Efficiency: N/A  
Efficacy: 62.5 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): 25.8  
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				
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°	5921	5921	5921
5°	5771	5831	5919
10°	5489	5627	5880
15°	5161	5388	5817
20°	4809	5111	5690
25°	4405	4784	5547
30°	3968	4439	5374
35°	3509	4079	5205
40°	3011	3714	5003
45°	2460	3304	4793
50°	2181	2834	4573
55°	2000	2352	4383
60°	1845	2082	4082
65°	1722	2001	3638
70°	1608	1902	2975
75°	1484	1782	2195
80°	1396	1669	1602
85°	1288	1627	1359

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 4793 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	79.6	4.9
10°-20°	214.3	13.3
20°-30°	294.6	18.3
30°-40°	312.2	19.4
40°-50°	272.5	16.9
50°-60°	207.0	12.8
60°-70°	138.7	8.6
70°-80°	71.5	4.4
80°-90°	21.4	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°	588.5	36.5
0°-40°	900.7	55.9
0°-60°	1380.3	85.6
0°-90°	1612.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1612.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	860	860	860	860	860	
5°	835	844	844	850	856	78
15°	724	738	756	789	816	203
25°	580	598	630	682	730	266
35°	418	442	485	554	619	260
45°	253	278	339	420	492	199
55°	167	172	196	288	365	149
65°	106	108	123	164	223	105
75°	56	59	67	71	82	60
85°	16	21	21	19	17	18
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	859.9	859.9	859.9	859.9	859.9
2.5°	853.9	859.9	854.7	854.7	856.4
5°	835.0	843.6	843.6	849.6	856.4
7.5°	811.8	821.2	826.4	840.1	850.4
10°	785.1	795.4	804.9	825.5	841.0
12.5°	756.8	768.0	782.6	809.2	830.7
15°	724.1	737.9	755.9	789.4	816.1
17.5°	691.5	705.3	727.6	767.1	797.2
20°	656.3	670.9	697.5	740.5	776.5
22.5°	618.5	634.8	663.2	712.1	754.2
25°	579.8	597.9	629.7	682.1	730.2
27.5°	539.5	560.9	595.3	651.1	704.4
30°	499.1	520.6	558.4	619.3	676.0
32.5°	458.7	481.9	523.1	587.6	648.6
35°	417.5	441.5	485.3	554.1	619.3
37.5°	377.1	401.2	450.1	521.4	587.6
40°	335.0	359.9	413.2	487.9	556.6
42.5°	292.1	318.7	376.2	453.6	524.9
45°	252.6	277.5	339.3	420.1	492.2
47.5°	223.3	239.7	302.4	385.7	460.4
50°	203.6	212.2	264.6	352.2	426.9
52.5°	183.8	190.7	229.4	317.8	395.1
55°	166.6	171.8	195.9	287.8	365.1
57.5°	149.5	154.6	170.1	257.7	329.9
60°	134.0	138.3	151.2	225.9	296.4
62.5°	119.4	122.8	136.6	195.9	260.3
65°	105.7	108.2	122.8	164.1	223.3
67.5°	91.9	94.5	109.1	134.0	183.8
70°	79.9	80.7	94.5	109.1	147.8
72.5°	67.9	68.7	79.9	88.5	113.4
75°	55.8	59.3	67.0	71.3	82.5
77.5°	45.5	49.8	54.1	55.8	55.8
80°	35.2	40.4	42.1	42.1	40.4
82.5°	25.8	30.1	30.9	29.2	27.5
85°	16.3	20.6	20.6	18.9	17.2
87.5°	7.7	11.2	11.2	10.3	7.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)