

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: P1061785

Luminaire Tested: S125RDR-S850D850-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1061785  
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: S125RDR-S850D850-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: -

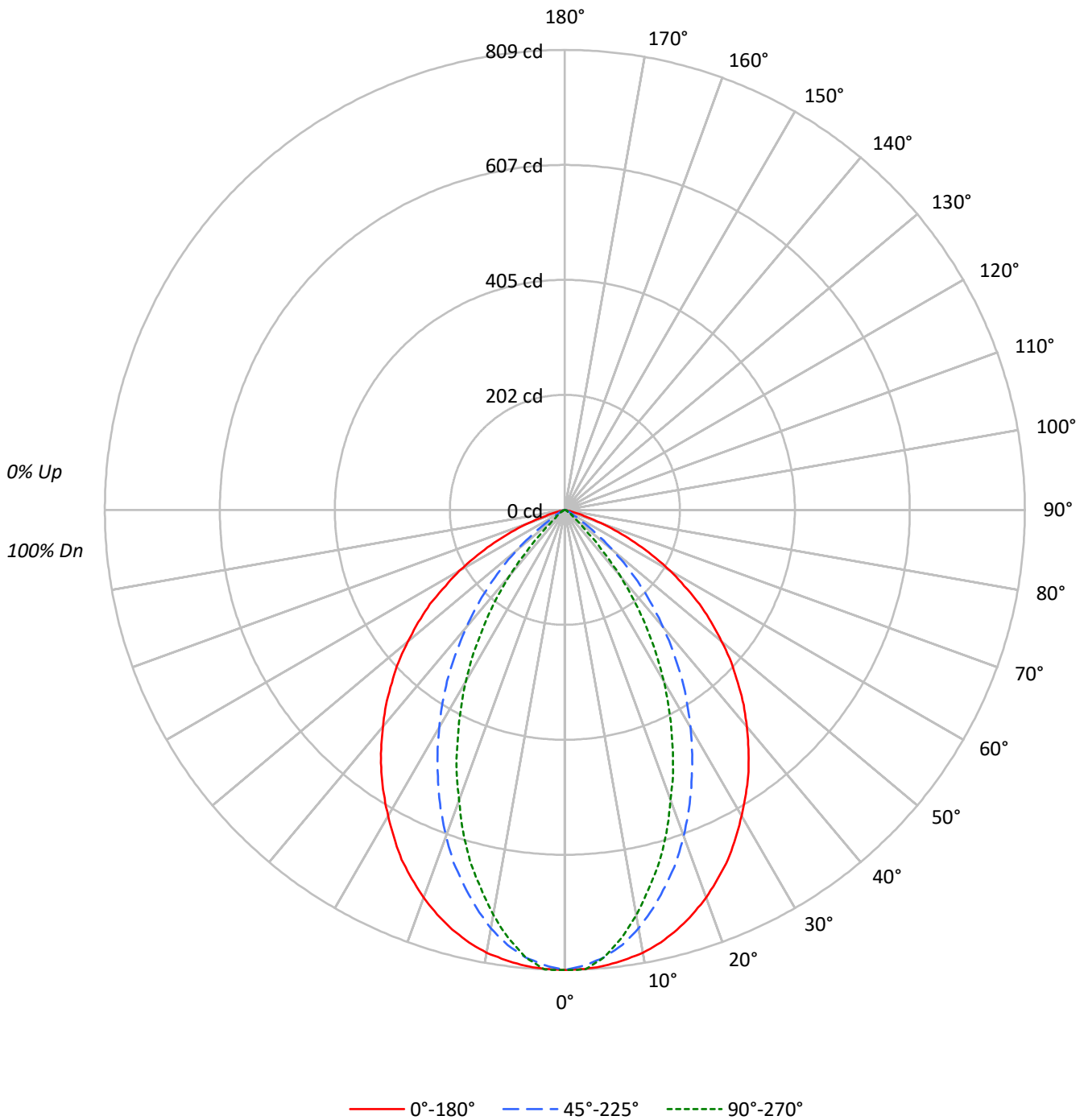
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1045.6 lumens  
Efficiency: N/A  
Efficacy: 40.5 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): 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	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°	5573	5573	5573
5°	5564	5461	5461
10°	5532	5226	5062
15°	5449	4879	4574
20°	5320	4475	3982
25°	5159	4007	3391
30°	4941	3515	2768
35°	4730	2997	2074
40°	4472	2419	1344
45°	4190	1830	582
50°	3854	1166	217
55°	3474	513	154
60°	2941	220	103
65°	2227	138	52
70°	1355	64	22
75°	285	29	29
80°	0	0	0
85°	0	0	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 4190 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	74.6	7.1
10°-20°	194.5	18.6
20°-30°	249.7	23.9
30°-40°	235.1	22.5
40°-50°	164.4	15.7
50°-60°	87.8	8.4
60°-70°	35.0	3.3
70°-80°	4.5	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°	518.8	49.6
0°-40°	753.9	72.1
0°-60°	1006.1	96.2
0°-90°	1045.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1045.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	809	809	809	809	809	
5°	805	803	790	792	790	76
15°	764	740	684	652	642	215
25°	679	619	528	470	446	312
35°	563	473	357	276	247	351
45°	430	322	188	91	60	332
55°	289	177	43	15	13	257
65°	137	54	8	4	3	136
75°	11	3	1	1	1	21
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	809.4	809.4	809.4	809.4	809.4
2.5°	808.3	809.4	801.9	808.3	809.4
5°	805.1	803.0	790.2	792.3	790.2
7.5°	798.7	793.4	772.0	764.5	760.3
10°	791.2	779.5	747.5	731.4	724.0
12.5°	779.5	762.4	717.6	693.0	682.3
15°	764.5	740.0	684.5	652.4	641.7
17.5°	746.4	714.4	650.3	610.8	594.8
20°	726.1	683.4	610.8	563.8	543.5
22.5°	702.6	653.5	570.2	517.9	497.6
25°	679.1	619.3	527.5	469.8	446.3
27.5°	650.3	584.1	484.8	422.8	397.2
30°	621.5	548.8	442.1	374.8	348.1
32.5°	592.6	511.5	399.4	324.6	297.9
35°	562.7	473.0	356.6	275.5	246.7
37.5°	530.7	434.6	310.7	228.5	198.6
40°	497.6	397.2	269.1	182.6	149.5
42.5°	465.6	359.8	227.4	137.7	101.4
45°	430.3	322.5	187.9	90.8	59.8
47.5°	397.2	286.2	147.4	52.3	31.0
50°	359.8	248.8	108.9	27.8	20.3
52.5°	324.6	212.5	72.6	18.2	16.0
55°	289.4	177.3	42.7	14.9	12.8
57.5°	248.8	143.1	23.5	11.7	9.6
60°	213.6	112.1	16.0	8.5	7.5
62.5°	173.0	82.2	11.7	6.4	5.3
65°	136.7	54.5	8.5	4.3	3.2
67.5°	101.4	32.0	5.3	2.1	2.1
70°	67.3	17.1	3.2	1.1	1.1
72.5°	35.2	7.5	2.1	1.1	1.1
75°	10.7	3.2	1.1	1.1	1.1
77.5°	0.0	1.1	0.0	0.0	1.1
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

(END OF REPORT)