

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: P1058416

Luminaire Tested: S122RDR-H485D935-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1058416  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-19)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122RDR-H485D935-X4F0-XX-UDD-WVL-B  
Description: DEFINE 2 BLACK REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 3500K CCT, 90 CRI LEDS  
Ballast/Driver: -

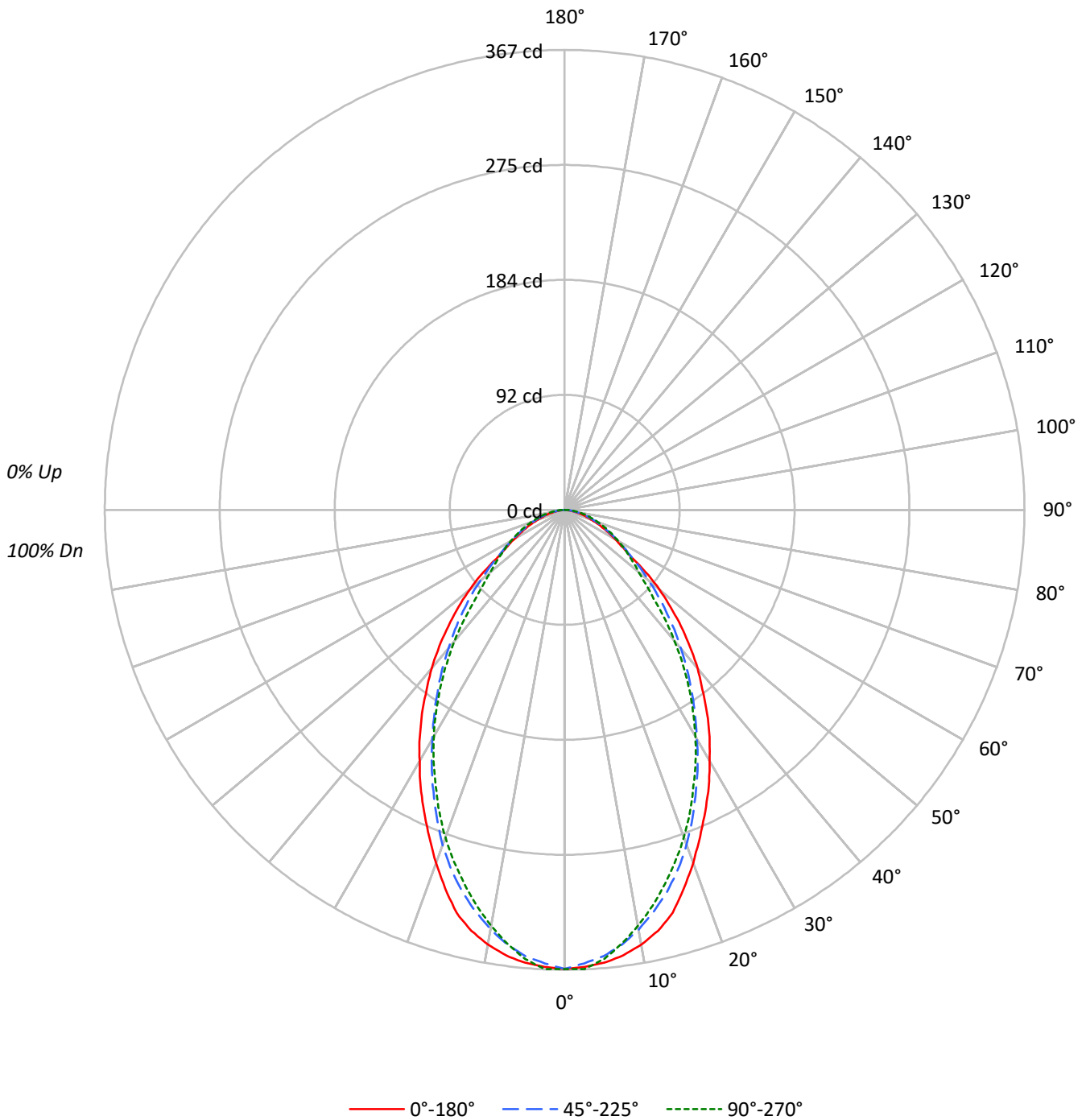
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 556.2 lumens  
Efficiency: N/A  
Efficacy: 32.0 lumens/watt  
Spacing Criteria (0/90/45): 1 / 0.92 / 1.02  
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 17.4  
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				100
1	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	88				88
2	103	96	91	86	100	94	89	85	91	87	83	88	84	81	85	82	79	77				77
3	95	87	80	74	93	85	79	74	82	77	73	80	75	71	77	73	70	68				68
4	89	79	71	65	87	77	70	65	75	69	64	73	68	63	71	66	63	61				61
5	83	72	64	58	81	71	63	58	69	62	57	67	61	57	65	60	56	54				54
6	77	66	58	52	75	65	57	52	63	56	52	61	56	51	60	55	51	49				49
7	72	60	53	47	71	60	52	47	58	52	47	57	51	47	56	50	46	44				44
8	68	56	48	43	66	55	48	43	54	47	43	53	47	43	52	46	42	41				41
9	64	52	45	40	63	51	44	39	50	44	39	49	43	39	48	43	39	37				37
10	60	48	41	36	59	48	41	36	47	41	36	46	40	36	45	40	36	34				34

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

	0°	45°	90°
0°	6759	6759	6759
5°	6720	6622	6665
10°	6601	6371	6316
15°	6361	6027	5905
20°	5887	5589	5463
25°	5404	5047	4952
30°	4933	4498	4449
35°	4467	3980	3888
40°	3975	3471	3288
45°	3424	2983	2633
50°	2831	2512	2210
55°	2046	2081	1988
60°	1701	1786	1808
65°	1450	1554	1655
70°	1198	1387	1511
75°	998	1162	1369
80°	744	924	1243
85°	254	487	1101

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 3424 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	33.8	6.1
10°-20°	89.2	16.0
20°-30°	115.4	20.7
30°-40°	113.2	20.3
40°-50°	89.1	16.0
50°-60°	58.4	10.5
60°-70°	35.6	6.4
70°-80°	17.8	3.2
80°-90°	3.8	0.7
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°	238.4	42.9
0°-40°	351.6	63.2
0°-60°	499.1	89.7
0°-90°	556.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	556.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	366	366	366	366	366	
5°	363	363	358	360	360	34
15°	333	328	316	311	309	93
25°	265	257	248	247	243	122
35°	198	187	177	176	173	124
45°	131	123	114	106	101	101
55°	64	67	65	62	62	60
65°	33	34	36	37	38	33
75°	14	15	16	19	19	15
85°	1	2	2	4	5	2
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	366.3	366.3	366.3	366.3	366.3
2.5°	365.1	365.7	362.2	365.7	366.8
5°	362.8	362.8	357.5	359.8	359.8
7.5°	358.7	358.1	349.9	349.9	349.3
10°	352.3	349.9	340.0	338.3	337.1
12.5°	344.1	340.0	328.3	325.4	323.7
15°	333.0	328.3	315.5	311.4	309.1
17.5°	316.7	312.0	300.9	296.3	293.9
20°	299.8	292.8	284.6	280.5	278.2
22.5°	282.3	274.1	266.5	263.6	261.3
25°	265.4	256.6	247.9	246.7	243.2
27.5°	249.0	238.5	229.8	229.2	226.3
30°	231.5	220.5	211.1	211.7	208.8
32.5°	215.2	204.7	193.6	194.2	190.7
35°	198.3	187.2	176.7	176.1	172.6
37.5°	180.8	170.3	160.4	158.0	154.6
40°	165.0	154.6	144.1	140.0	136.5
42.5°	148.1	138.8	129.5	123.1	118.4
45°	131.2	123.1	114.3	106.1	100.9
47.5°	114.9	108.5	100.9	91.0	87.5
50°	98.6	93.9	87.5	78.7	77.0
52.5°	81.6	79.9	75.8	70.0	69.4
55°	63.6	67.1	64.7	62.4	61.8
57.5°	53.7	54.2	56.0	55.4	55.4
60°	46.1	46.1	48.4	49.0	49.0
62.5°	39.1	39.7	42.0	43.2	43.2
65°	33.2	33.8	35.6	37.3	37.9
67.5°	27.4	28.6	30.3	32.1	32.7
70°	22.2	23.3	25.7	27.4	28.0
72.5°	18.1	18.7	21.0	22.7	23.3
75°	14.0	14.6	16.3	18.7	19.2
77.5°	9.9	11.1	12.8	14.6	15.7
80°	7.0	7.6	8.7	11.1	11.7
82.5°	4.1	4.7	5.8	7.6	8.2
85°	1.2	1.7	2.3	4.1	5.2
87.5°	0.0	0.0	0.0	1.2	2.3
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	12.76	14.16	13.12	14.47	14.78	12.94	14.34	13.30	14.65	14.96
	3H	13.89	15.14	14.27	15.47	15.83	14.40	15.65	14.78	15.98	16.34
	4H	14.24	15.41	14.65	15.76	16.14	14.94	16.11	15.34	16.46	16.84
	6H	14.43	15.50	14.84	15.87	16.26	15.35	16.43	15.77	16.79	17.19
	8H	14.46	15.47	14.89	15.86	16.27	15.48	16.50	15.91	16.89	17.29
	12H	14.44	15.41	14.87	15.80	16.23	15.57	16.54	16.00	16.92	17.35
4H	2H	13.22	14.38	13.62	14.73	15.11	13.37	14.53	13.77	14.88	15.26
	3H	14.56	15.52	14.97	15.92	16.32	15.04	16.00	15.45	16.40	16.80
	4H	15.00	15.86	15.44	16.28	16.72	15.71	16.56	16.14	16.98	17.42
	6H	15.28	16.02	15.74	16.46	16.93	16.24	16.98	16.70	17.43	17.89
	8H	15.32	16.01	15.79	16.46	16.93	16.41	17.10	16.88	17.55	18.02
	12H	15.32	15.93	15.80	16.41	16.89	16.53	17.15	17.01	17.63	18.10
8H	4H	15.22	15.91	15.68	16.36	16.83	15.85	16.55	16.32	16.99	17.46
	6H	15.56	16.13	16.06	16.63	17.11	16.49	17.05	16.99	17.55	18.03
	8H	15.64	16.15	16.16	16.67	17.16	16.72	17.23	17.24	17.74	18.23
	12H	15.66	16.11	16.17	16.60	17.17	16.90	17.35	17.42	17.85	18.42
12H	4H	15.23	15.84	15.71	16.32	16.80	15.84	16.46	16.32	16.94	17.41
	6H	15.59	16.10	16.11	16.61	17.10	16.48	16.99	17.00	17.50	17.99
	8H	15.71	16.16	16.22	16.65	17.22	16.76	17.21	17.27	17.70	18.27