

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: P1058408

Luminaire Tested: S122RDR-H485D930-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1058408  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-58)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122RDR-H485D930-X4F0-XX-UDD-WVL-S  
Description: DEFINE 2 SILVER REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 3000K CCT, 90 CRI LEDS  
Ballast/Driver: -

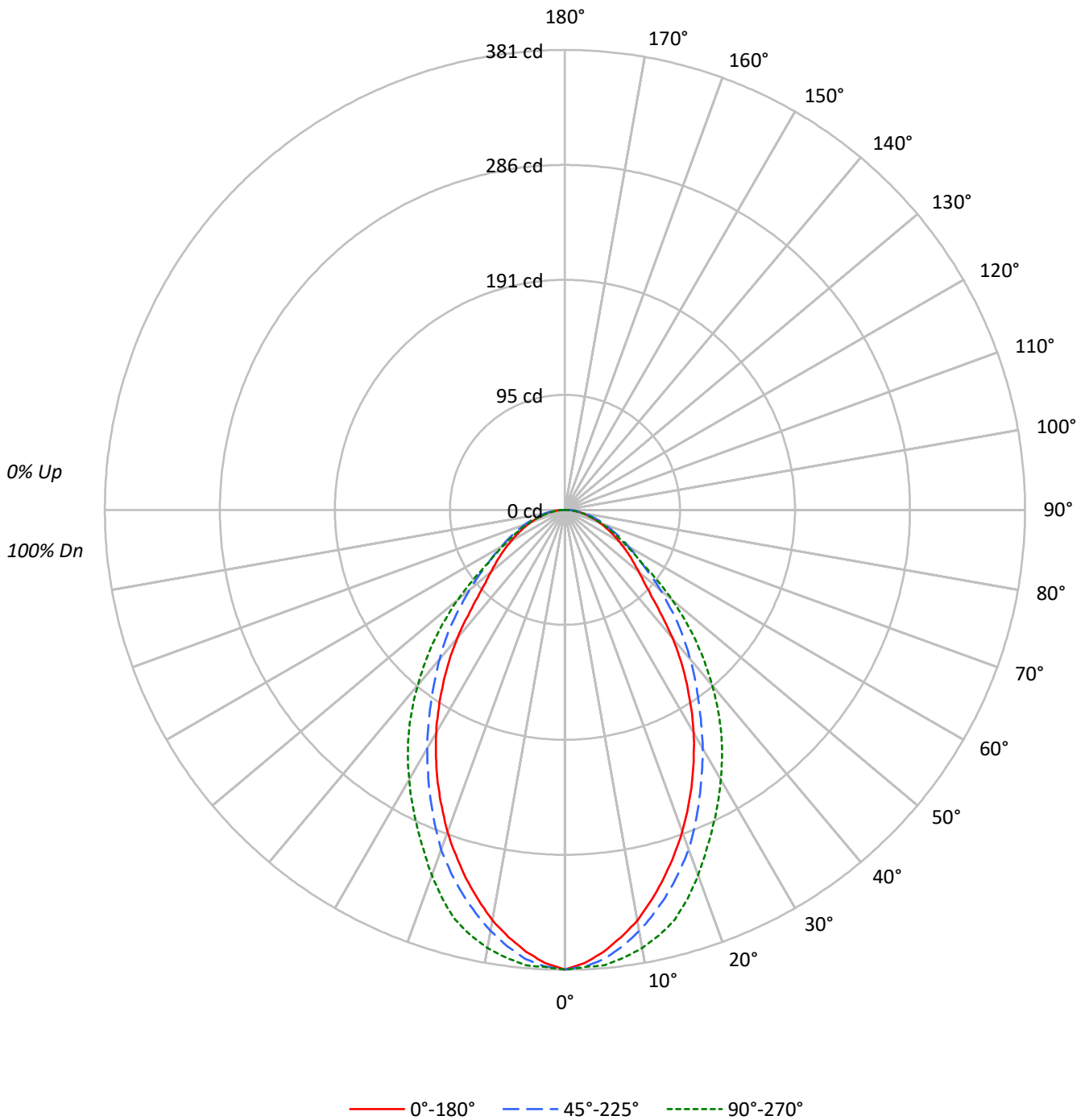
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 620.0 lumens  
Efficiency: N/A  
Efficacy: 35.6 lumens/watt  
Spacing Criteria (0/90/45): 0.91 / 1.05 / 1.05  
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				
1	110	106	103	99	108	104	101	98	100	97	95	96	94	92	93	91	89	87				
2	102	95	89	84	100	93	88	83	90	85	81	87	83	79	84	80	78	76				
3	94	85	78	73	92	84	77	72	81	75	71	78	73	69	76	72	68	66				
4	88	77	69	63	85	76	69	63	73	67	62	71	66	61	69	64	61	59				
5	81	70	62	56	79	69	61	56	67	60	55	65	59	55	63	58	54	52				
6	76	64	56	50	74	63	56	50	61	55	50	60	54	49	58	53	49	47				
7	71	59	51	45	69	58	51	45	57	50	45	55	49	45	54	49	44	43				
8	67	54	47	41	65	54	46	41	52	46	41	51	45	41	50	45	41	39				
9	63	50	43	38	61	50	43	38	49	42	38	48	42	37	47	41	37	36				
10	59	47	40	35	58	46	39	35	45	39	35	45	39	34	44	38	34	33				

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

	0°	45°	90°
0°	7027	7027	7027
5°	6807	6920	7013
10°	6472	6637	6907
15°	6039	6281	6715
20°	5579	5881	6327
25°	5074	5367	5896
30°	4545	4862	5499
35°	3958	4345	5080
40°	3341	3888	4567
45°	2654	3432	3995
50°	2285	2951	3316
55°	2081	2525	2542
60°	1897	2244	2163
65°	1738	2026	1908
70°	1608	1878	1699
75°	1497	1775	1497
80°	1413	1700	1350
85°	1397	1757	1164

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 3995 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	35.1	5.7
10°-20°	92.9	15.0
20°-30°	122.3	19.7
30°-40°	123.0	19.8
40°-50°	99.7	16.1
50°-60°	68.6	11.1
60°-70°	44.9	7.2
70°-80°	25.0	4.0
80°-90°	8.5	1.4
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°	250.3	40.4
0°-40°	373.3	60.2
0°-60°	541.6	87.4
0°-90°	620.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	620.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	381	381	381	381	381	
5°	368	375	374	375	379	34
15°	316	324	329	341	352	89
25°	249	256	264	275	290	114
35°	176	184	193	210	226	110
45°	102	113	132	143	153	80
55°	65	72	78	80	79	58
65°	40	48	46	44	44	40
75°	21	26	25	22	21	22
85°	7	9	8	7	6	7
90°	0	0	0	0	0	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	380.8	380.8	380.8	380.8	380.8
2.5°	375.8	382.4	378.6	378.6	379.1
5°	367.5	374.7	373.6	375.2	378.6
7.5°	357.0	364.7	364.7	369.7	374.1
10°	345.4	353.1	354.2	362.0	368.6
12.5°	331.0	338.8	342.1	352.0	360.9
15°	316.1	323.9	328.8	341.0	351.5
17.5°	300.1	307.8	314.5	327.2	337.7
20°	284.1	291.2	299.5	310.6	322.2
22.5°	266.4	274.1	281.8	292.3	305.6
25°	249.2	255.9	263.6	275.2	289.6
27.5°	231.0	238.2	245.4	259.2	274.1
30°	213.3	220.5	228.2	242.6	258.1
32.5°	194.5	202.3	210.0	226.0	242.1
35°	175.7	184.0	192.9	210.0	225.5
37.5°	157.5	166.3	176.8	194.5	207.8
40°	138.7	148.1	161.4	176.8	189.6
42.5°	118.8	130.4	146.5	159.7	171.3
45°	101.7	113.3	131.5	143.1	153.1
47.5°	89.0	98.4	116.1	126.0	134.3
50°	79.6	86.8	102.8	110.0	115.5
52.5°	71.8	79.0	90.1	95.1	96.7
55°	64.7	71.8	78.5	80.1	79.0
57.5°	57.5	65.2	69.1	67.4	67.4
60°	51.4	59.7	60.8	58.6	58.6
62.5°	45.3	53.6	53.6	50.8	50.8
65°	39.8	47.5	46.4	44.2	43.7
67.5°	34.8	42.0	40.3	38.1	37.6
70°	29.8	36.5	34.8	32.1	31.5
72.5°	25.4	31.5	29.3	27.1	26.0
75°	21.0	26.0	24.9	22.1	21.0
77.5°	17.1	21.0	19.9	17.7	16.6
80°	13.3	16.6	16.0	13.8	12.7
82.5°	9.9	12.7	12.2	10.5	8.8
85°	6.6	8.8	8.3	7.2	5.5
87.5°	3.3	6.1	5.5	5.0	2.8
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	13.50	14.94	13.87	15.26	15.57	13.86	15.30	14.23	15.61	15.93
	3H	15.05	16.34	15.43	16.66	17.03	15.21	16.50	15.59	16.83	17.19
	4H	15.62	16.83	16.02	17.18	17.56	15.69	16.90	16.09	17.25	17.63
	6H	16.05	17.16	16.46	17.53	17.92	16.05	17.16	16.46	17.53	17.92
	8H	16.20	17.26	16.63	17.65	18.05	16.16	17.22	16.59	17.61	18.01
	12H	16.32	17.33	16.75	17.71	18.14	16.24	17.25	16.67	17.63	18.06
4H	2H	14.09	15.30	14.49	15.65	16.03	14.38	15.58	14.78	15.93	16.31
	3H	15.91	16.91	16.32	17.31	17.71	15.95	16.95	16.36	17.35	17.75
	4H	16.66	17.56	17.09	17.98	18.42	16.55	17.46	16.99	17.87	18.31
	6H	17.25	18.03	17.70	18.47	18.93	17.04	17.82	17.50	18.26	18.72
	8H	17.45	18.19	17.92	18.63	19.10	17.20	17.93	17.66	18.38	18.84
	12H	17.62	18.27	18.10	18.75	19.22	17.32	17.97	17.80	18.45	18.92
8H	4H	16.94	17.67	17.41	18.12	18.59	16.86	17.59	17.32	18.03	18.50
	6H	17.70	18.30	18.20	18.80	19.28	17.47	18.08	17.97	18.57	19.05
	8H	18.02	18.57	18.54	19.08	19.57	17.72	18.26	18.24	18.78	19.26
	12H	18.31	18.79	18.82	19.28	19.85	17.93	18.41	18.44	18.90	19.47
12H	4H	16.96	17.61	17.45	18.09	18.57	16.89	17.54	17.37	18.02	18.49
	6H	17.76	18.30	18.28	18.81	19.30	17.55	18.09	18.07	18.61	19.09
	8H	18.16	18.64	18.67	19.13	19.70	17.87	18.35	18.38	18.84	19.41