

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: P1058588

Luminaire Tested: S122RDR-H865D940-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1058588  
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-H865D940-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: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: -

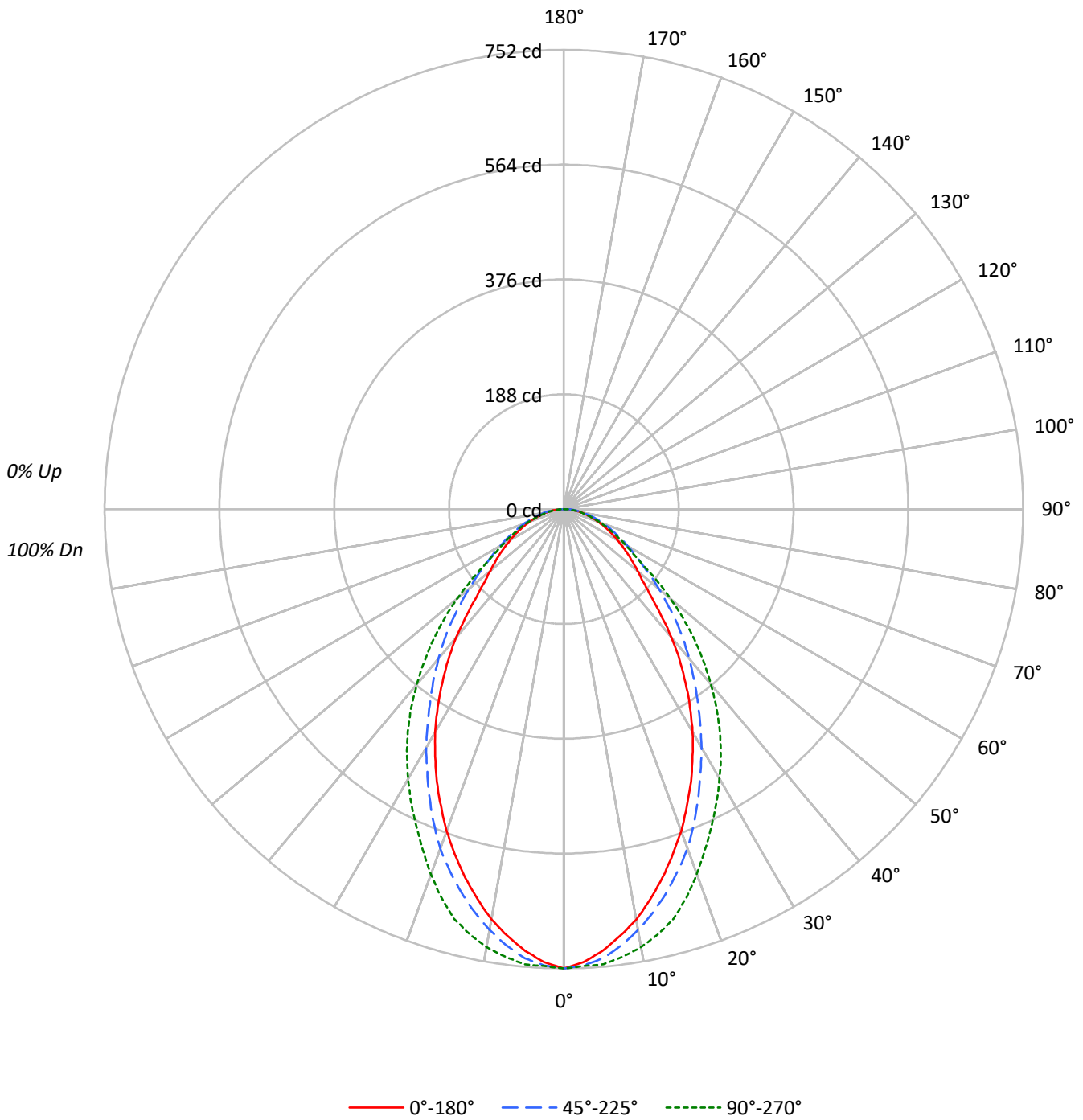
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1224.8 lumens  
Efficiency: N/A  
Efficacy: 39.3 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): 31.2  
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	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°	13880	13880	13880
5°	13448	13670	13851
10°	12784	13112	13644
15°	11928	12410	13263
20°	11018	11619	12499
25°	10025	10601	11646
30°	8979	9607	10862
35°	7821	8583	10033
40°	6600	7679	9021
45°	5243	6780	7891
50°	4513	5830	6551
55°	4108	4986	5022
60°	3746	4432	4270
65°	3432	4004	3764
70°	3183	3712	3356
75°	2959	3501	2959
80°	2784	3369	2667
85°	2774	3472	2308

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 7891 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	69.4	5.7
10°-20°	183.6	15.0
20°-30°	241.6	19.7
30°-40°	242.9	19.8
40°-50°	196.9	16.1
50°-60°	135.6	11.1
60°-70°	88.7	7.2
70°-80°	49.5	4.0
80°-90°	16.7	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°	494.5	40.4
0°-40°	737.4	60.2
0°-60°	1069.9	87.4
0°-90°	1224.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1224.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	752	752	752	752	752	
5°	726	740	738	741	748	68
15°	624	640	650	674	694	175
25°	492	506	521	544	572	226
35°	347	364	381	415	445	217
45°	201	224	260	283	302	159
55°	128	142	155	158	156	114
65°	79	94	92	87	86	78
75°	42	51	49	44	42	44
85°	13	18	16	14	11	14
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	752.2	752.2	752.2	752.2	752.2
2.5°	742.4	755.5	747.8	747.8	748.9
5°	726.0	740.2	738.0	741.3	747.8
7.5°	705.2	720.5	720.5	730.3	739.1
10°	682.3	697.6	699.8	715.1	728.2
12.5°	653.9	669.2	675.8	695.4	712.9
15°	624.4	639.7	649.6	673.6	694.3
17.5°	592.8	608.1	621.2	646.3	667.0
20°	561.1	575.3	591.7	613.5	636.5
22.5°	526.2	541.5	556.8	577.5	603.7
25°	492.4	505.5	520.7	543.7	572.0
27.5°	456.3	470.5	484.7	512.0	541.5
30°	421.4	435.6	450.9	479.3	509.8
32.5°	384.3	399.6	414.8	446.5	478.2
35°	347.2	363.5	381.0	414.8	445.4
37.5°	311.1	328.6	349.3	384.3	410.5
40°	274.0	292.6	318.8	349.3	374.5
42.5°	234.7	257.6	289.3	315.5	338.4
45°	200.9	223.8	259.8	282.7	302.4
47.5°	175.8	194.3	229.3	248.9	265.3
50°	157.2	171.4	203.1	217.2	228.2
52.5°	141.9	156.1	177.9	187.8	191.0
55°	127.7	141.9	155.0	158.3	156.1
57.5°	113.5	128.8	136.5	133.2	133.2
60°	101.5	117.9	120.1	115.7	115.7
62.5°	89.5	105.9	105.9	100.4	100.4
65°	78.6	93.9	91.7	87.3	86.2
67.5°	68.8	83.0	79.7	75.3	74.2
70°	59.0	72.1	68.8	63.3	62.2
72.5°	50.2	62.2	57.9	53.5	51.3
75°	41.5	51.3	49.1	43.7	41.5
77.5°	33.8	41.5	39.3	34.9	32.8
80°	26.2	32.8	31.7	27.3	25.1
82.5°	19.7	25.1	24.0	20.7	17.5
85°	13.1	17.5	16.4	14.2	10.9
87.5°	6.6	12.0	10.9	9.8	5.5
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	15.87	17.31	16.23	17.62	17.94	16.23	17.67	16.59	17.98	18.30
	3H	17.41	18.70	17.79	19.03	19.39	17.57	18.86	17.95	19.19	19.55
	4H	17.98	19.19	18.38	19.54	19.92	18.06	19.26	18.46	19.61	19.99
	6H	18.41	19.53	18.83	19.90	20.29	18.41	19.53	18.82	19.89	20.29
	8H	18.57	19.63	19.00	20.02	20.42	18.53	19.59	18.96	19.98	20.38
	12H	18.68	19.70	19.12	20.08	20.51	18.60	19.62	19.03	20.00	20.43
4H	2H	16.45	17.66	16.85	18.01	18.39	16.74	17.95	17.14	18.30	18.68
	3H	18.28	19.28	18.69	19.68	20.08	18.32	19.32	18.73	19.72	20.12
	4H	19.02	19.92	19.46	20.34	20.78	18.92	19.82	19.35	20.24	20.68
	6H	19.61	20.39	20.07	20.84	21.30	19.40	20.18	19.86	20.63	21.09
	8H	19.82	20.55	20.29	21.00	21.47	19.57	20.30	20.03	20.74	21.21
	12H	19.99	20.64	20.47	21.12	21.59	19.69	20.34	20.17	20.82	21.29
8H	4H	19.31	20.04	19.77	20.48	20.95	19.22	19.95	19.69	20.40	20.87
	6H	20.07	20.67	20.56	21.16	21.64	19.84	20.44	20.34	20.94	21.41
	8H	20.39	20.93	20.91	21.44	21.93	20.09	20.63	20.60	21.14	21.63
	12H	20.68	21.15	21.19	21.65	22.21	20.30	20.78	20.81	21.27	21.84
12H	4H	19.33	19.98	19.81	20.46	20.93	19.26	19.91	19.74	20.39	20.86
	6H	20.13	20.67	20.64	21.18	21.67	19.92	20.46	20.43	20.97	21.46
	8H	20.52	21.00	21.04	21.50	22.06	20.23	20.71	20.75	21.21	21.77