

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: P1058246

Luminaire Tested: S122RDR-H1005D930-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1058246  
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-H1005D930-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: -

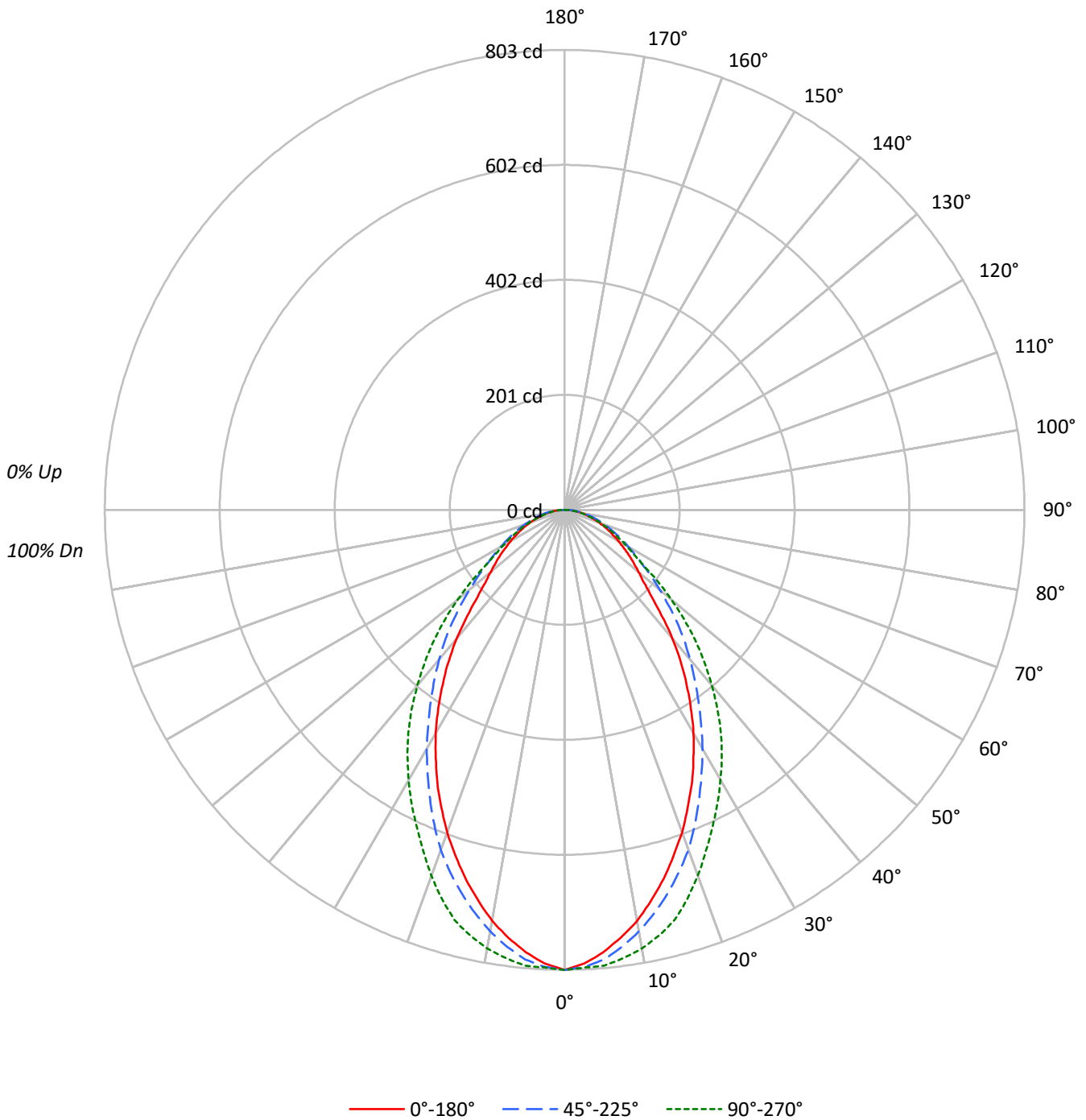
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1308.3 lumens  
Efficiency: N/A  
Efficacy: 35.8 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): 36.5  
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

TEST NUMBER: P1058246

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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	110	106	103	99	108	104	101	98	100	97	95	96	94	92	93	91	89	87				87
2	102	95	89	84	100	93	88	83	90	85	81	86	83	79	84	80	78	76				76
3	94	85	78	73	92	84	77	72	81	75	71	78	73	69	76	72	68	66				66
4	88	77	69	63	85	76	69	63	73	67	62	71	66	61	69	64	61	59				59
5	81	70	62	56	79	69	61	56	67	60	55	65	59	55	63	58	54	52				52
6	76	64	56	50	74	63	56	50	61	55	50	60	54	49	58	53	49	47				47
7	71	59	51	45	69	58	51	45	57	50	45	55	49	45	54	49	44	43				43
8	67	54	47	41	65	54	46	41	52	46	41	51	45	41	50	45	41	39				39
9	63	50	43	38	61	50	43	38	49	42	38	48	42	37	47	41	37	36				36
10	59	47	40	35	58	46	39	35	45	39	35	45	39	34	44	38	34	33				33

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

	0°	45°	90°
0°	14825	14825	14825
5°	14363	14600	14794
10°	13656	14004	14572
15°	12742	13254	14167
20°	11768	12410	13349
25°	10707	11324	12440
30°	9590	10261	11602
35°	8353	9166	10716
40°	7051	8202	9633
45°	5598	7242	8429
50°	4820	6227	6996
55°	4388	5328	5363
60°	4000	4735	4561
65°	3668	4275	4021
70°	3399	3965	3588
75°	3158	3743	3158
80°	2975	3592	2848
85°	2964	3705	2477

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 8429 cd/sqm



TEST NUMBER: P1058246

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	74.2	5.7
10°-20°	196.1	15.0
20°-30°	258.0	19.7
30°-40°	259.4	19.8
40°-50°	210.3	16.1
50°-60°	144.8	11.1
60°-70°	94.8	7.2
70°-80°	52.8	4.0
80°-90°	17.9	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°	528.2	40.4
0°-40°	787.7	60.2
0°-60°	1142.8	87.3
0°-90°	1308.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1308.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	803	803	803	803	803	
5°	775	791	788	792	799	73
15°	667	683	694	719	742	187
25°	526	540	556	581	611	241
35°	371	388	407	443	476	231
45°	214	239	278	302	323	170
55°	136	152	166	169	167	122
65°	84	100	98	93	92	84
75°	44	55	52	47	44	47
85°	14	19	18	15	12	15
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	803.4	803.4	803.4	803.4	803.4
2.5°	792.9	806.9	798.7	798.7	799.9
5°	775.4	790.6	788.2	791.7	798.7
7.5°	753.2	769.6	769.6	780.1	789.4
10°	728.8	745.1	747.4	763.7	777.7
12.5°	698.4	714.8	721.8	742.8	761.4
15°	667.0	683.3	693.8	719.4	741.6
17.5°	633.1	649.5	663.5	690.3	712.4
20°	599.3	614.5	632.0	655.3	679.8
22.5°	562.0	578.3	594.7	616.8	644.8
25°	525.9	539.9	556.2	580.7	611.0
27.5°	487.4	502.6	517.7	546.9	578.3
30°	450.1	465.2	481.6	511.9	544.5
32.5°	410.4	426.8	443.1	476.9	510.7
35°	370.8	388.3	406.9	443.1	475.7
37.5°	332.3	351.0	373.1	410.4	438.4
40°	292.7	312.5	340.5	373.1	399.9
42.5°	250.7	275.2	309.0	337.0	361.5
45°	214.5	239.0	277.5	302.0	323.0
47.5°	187.7	207.6	244.9	265.9	283.3
50°	167.9	183.1	216.9	232.0	243.7
52.5°	151.6	166.7	190.1	200.6	204.1
55°	136.4	151.6	165.6	169.1	166.7
57.5°	121.3	137.6	145.8	142.3	142.3
60°	108.4	125.9	128.3	123.6	123.6
62.5°	95.6	113.1	113.1	107.3	107.3
65°	84.0	100.3	97.9	93.3	92.1
67.5°	73.5	88.6	85.1	80.5	79.3
70°	63.0	77.0	73.5	67.6	66.5
72.5°	53.6	66.5	61.8	57.1	54.8
75°	44.3	54.8	52.5	46.6	44.3
77.5°	36.1	44.3	42.0	37.3	35.0
80°	28.0	35.0	33.8	29.2	26.8
82.5°	21.0	26.8	25.7	22.2	18.7
85°	14.0	18.7	17.5	15.2	11.7
87.5°	7.0	12.8	11.7	10.5	5.8
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	16.10	17.54	16.46	17.85	18.17	16.46	17.90	16.82	18.21	18.53
	3H	17.64	18.93	18.02	19.26	19.62	17.80	19.09	18.18	19.42	19.79
	4H	18.21	19.42	18.61	19.77	20.15	18.29	19.49	18.69	19.84	20.22
	6H	18.64	19.76	19.06	20.13	20.52	18.64	19.76	19.05	20.12	20.52
	8H	18.80	19.86	19.22	20.25	20.65	18.76	19.82	19.19	20.21	20.61
	12H	18.91	19.93	19.34	20.31	20.74	18.83	19.85	19.26	20.23	20.66
4H	2H	16.68	17.89	17.08	18.24	18.62	16.97	18.18	17.37	18.53	18.91
	3H	18.51	19.51	18.92	19.91	20.31	18.55	19.55	18.96	19.95	20.35
	4H	19.25	20.15	19.69	20.57	21.01	19.15	20.05	19.58	20.47	20.91
	6H	19.84	20.62	20.30	21.07	21.53	19.63	20.41	20.09	20.86	21.32
	8H	20.05	20.78	20.51	21.23	21.69	19.79	20.53	20.26	20.97	21.44
	12H	20.22	20.87	20.70	21.35	21.82	19.92	20.57	20.40	21.05	21.52
8H	4H	19.54	20.27	20.00	20.71	21.18	19.45	20.18	19.91	20.63	21.09
	6H	20.29	20.90	20.79	21.39	21.87	20.07	20.67	20.57	21.17	21.64
	8H	20.62	21.16	21.13	21.67	22.16	20.32	20.86	20.83	21.37	21.86
	12H	20.90	21.38	21.41	21.88	22.44	20.53	21.01	21.04	21.50	22.07
12H	4H	19.56	20.21	20.04	20.69	21.16	19.48	20.14	19.97	20.62	21.09
	6H	20.35	20.90	20.87	21.41	21.90	20.15	20.69	20.66	21.20	21.69
	8H	20.75	21.23	21.26	21.72	22.29	20.47	20.94	20.98	21.44	22.00