

Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



Scaled data based on original data using  
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1058051

Luminaire Tested: S122RDRP-S675D840-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1058051  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-60)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122RDRP-S675D840-X4F0-XX-UDD-BVL-S  
Description: DEFINE 2 SILVER REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: -

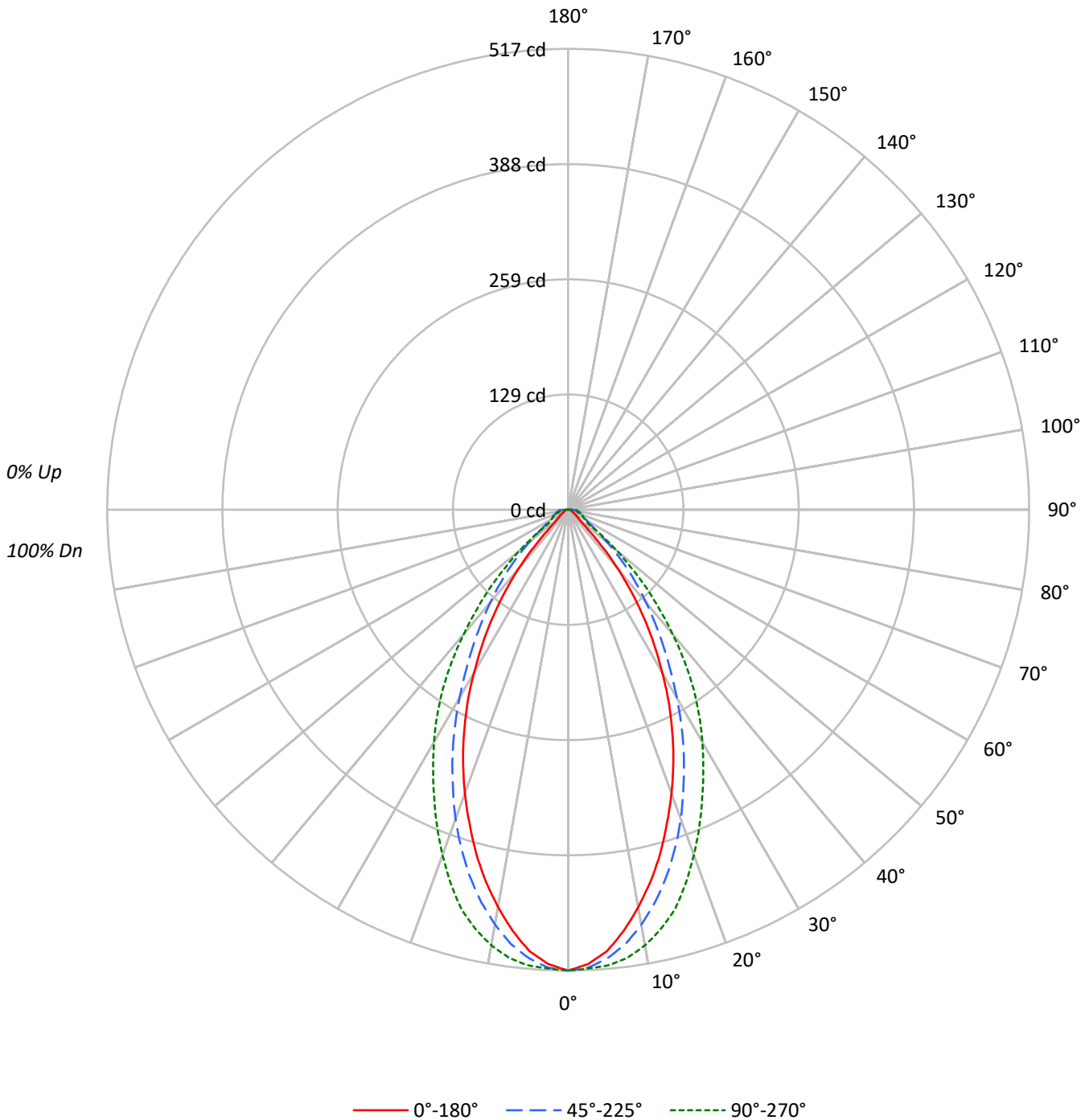
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 557.5 lumens  
Efficiency: N/A  
Efficacy: 21.6 lumens/watt  
Spacing Criteria (0/90/45): 0.79 / 0.95 / 0.9  
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 25.8  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): 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	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	108	105	102	109	106	103	101	102	100	97	98	96	95	95	93	92	90																												
2	105	99	94	90	102	97	92	89	94	90	87	91	87	85	88	85	83	81																												
3	98	91	85	80	96	89	84	79	86	82	78	84	80	77	82	78	75	74																												
4	92	83	77	72	90	82	76	71	80	75	70	78	73	70	76	72	69	67																												
5	87	77	70	65	85	76	70	65	74	69	64	72	68	64	71	67	63	61																												
6	82	72	65	60	80	71	64	59	69	63	59	68	63	59	66	62	58	57																												
7	77	67	60	55	76	66	59	55	65	59	54	63	58	54	62	57	54	52																												
8	73	62	55	51	72	62	55	51	61	55	50	59	54	50	58	54	50	48																												
9	69	58	52	47	68	58	51	47	57	51	47	56	51	47	55	50	47	45																												
10	66	55	48	44	65	54	48	44	54	48	44	53	47	44	52	47	44	42																												

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

	0°	45°	90°
0°	9542	9542	9542
5°	9211	9358	9506
10°	8482	8855	9299
15°	7626	8138	8856
20°	6653	7256	8092
25°	5628	6253	7242
30°	4496	5193	6418
35°	3325	4174	5512
40°	2100	3269	4391
45°	827	2456	3231
50°	428	1651	1989
55°	351	1084	891
60°	255	878	805
65°	218	821	821
70°	216	858	804
75°	285	991	848
80°	425	1265	946
85°	635	2096	1249

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 87.5°  
 Luminance: 4188 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	47.3	8.5
10°-20°	119.5	21.4
20°-30°	142.0	25.5
30°-40°	118.1	21.2
40°-50°	66.0	11.8
50°-60°	26.7	4.8
60°-70°	17.0	3.1
70°-80°	12.8	2.3
80°-90°	8.1	1.5
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°	308.7	55.4
0°-40°	426.8	76.6
0°-60°	519.5	93.2
0°-90°	557.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	557.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	517	517	517	517	517	
5°	497	506	505	509	513	46
15°	399	411	426	448	464	111
25°	276	287	307	331	356	126
35°	148	162	185	216	245	92
45°	32	54	94	110	124	30
55°	11	23	34	33	28	9
65°	5	20	19	18	19	5
75°	4	14	14	13	12	4
85°	3	9	10	9	6	3
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	517.1	517.1	517.1	517.1	517.1
2.5°	510.2	518.1	514.2	514.2	515.2
5°	497.3	506.2	505.2	509.2	513.2
7.5°	476.5	486.4	491.4	500.3	507.2
10°	452.7	463.6	472.6	486.4	496.3
12.5°	427.0	437.9	450.8	468.6	481.5
15°	399.2	411.1	426.0	447.8	463.6
17.5°	368.5	381.4	398.3	422.0	438.9
20°	338.8	351.7	369.5	393.3	412.1
22.5°	308.1	319.0	337.8	361.6	384.4
25°	276.4	287.3	307.1	330.9	355.7
27.5°	244.7	255.6	275.4	300.2	327.9
30°	211.0	222.9	243.7	271.4	301.2
32.5°	179.3	191.2	213.0	243.7	273.4
35°	147.6	161.5	185.3	216.0	244.7
37.5°	116.9	132.8	159.5	188.2	214.0
40°	87.2	104.0	135.7	160.5	182.3
42.5°	57.5	77.3	113.9	134.7	151.6
45°	31.7	53.5	94.1	110.0	123.8
47.5°	17.8	34.7	74.3	87.2	95.1
50°	14.9	25.8	57.5	66.4	69.3
52.5°	11.9	23.8	43.6	48.5	46.6
55°	10.9	22.8	33.7	32.7	27.7
57.5°	8.9	22.8	26.7	23.8	23.8
60°	6.9	21.8	23.8	20.8	21.8
62.5°	5.9	20.8	21.8	19.8	19.8
65°	5.0	19.8	18.8	17.8	18.8
67.5°	4.0	17.8	17.8	16.8	16.8
70°	4.0	16.8	15.9	14.9	14.9
72.5°	4.0	14.9	14.9	13.9	13.9
75°	4.0	13.9	13.9	12.9	11.9
77.5°	4.0	11.9	12.9	11.9	10.9
80°	4.0	10.9	11.9	10.9	8.9
82.5°	4.0	9.9	10.9	9.9	7.9
85°	3.0	8.9	9.9	8.9	5.9
87.5°	3.0	8.9	9.9	7.9	5.0
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	6.21	7.42	6.57	7.74	8.05	7.28	8.50	7.65	8.82	9.13
	3H	7.54	8.62	7.92	8.95	9.32	9.31	10.39	9.69	10.72	11.09
	4H	8.12	9.13	8.52	9.48	9.86	10.27	11.28	10.67	11.63	12.01
	6H	8.69	9.62	9.10	9.99	10.38	11.21	12.14	11.63	12.51	12.91
	8H	9.02	9.89	9.45	10.29	10.69	11.66	12.54	12.09	12.93	13.34
	12H	9.33	10.17	9.76	10.55	10.98	12.08	12.92	12.51	13.30	13.73
4H	2H	7.17	8.18	7.57	8.53	8.91	7.96	8.97	8.36	9.32	9.70
	3H	9.19	10.03	9.61	10.43	10.84	10.24	11.07	10.65	11.48	11.88
	4H	10.28	11.03	10.72	11.45	11.89	11.39	12.14	11.83	12.56	13.00
	6H	11.15	11.80	11.62	12.25	12.72	12.56	13.21	13.02	13.66	14.12
	8H	11.57	12.17	12.04	12.62	13.09	13.12	13.72	13.59	14.17	14.64
	12H	11.95	12.48	12.44	12.97	13.44	13.66	14.19	14.15	14.68	15.15
8H	4H	11.05	11.66	11.52	12.11	12.58	11.94	12.55	12.41	13.00	13.47
	6H	12.39	12.89	12.90	13.39	13.87	13.40	13.89	13.90	14.39	14.87
	8H	13.11	13.56	13.63	14.07	14.57	14.16	14.60	14.68	15.12	15.61
	12H	13.80	14.19	14.32	14.69	15.26	14.94	15.33	15.46	15.83	16.40
12H	4H	11.21	11.74	11.70	12.23	12.70	12.05	12.59	12.54	13.07	13.54
	6H	12.71	13.16	13.24	13.68	14.17	13.62	14.07	14.15	14.59	15.08
	8H	13.62	14.01	14.13	14.51	15.08	14.53	14.92	15.04	15.42	15.99