

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: P1058459

Luminaire Tested: S122RDR-H675D840-X4F0-XX-UDD-SVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1058459  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-59)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122RDR-H675D840-X4F0-XX-UDD-SVL-S  
Description: DEFINE 2 SILVER REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: -

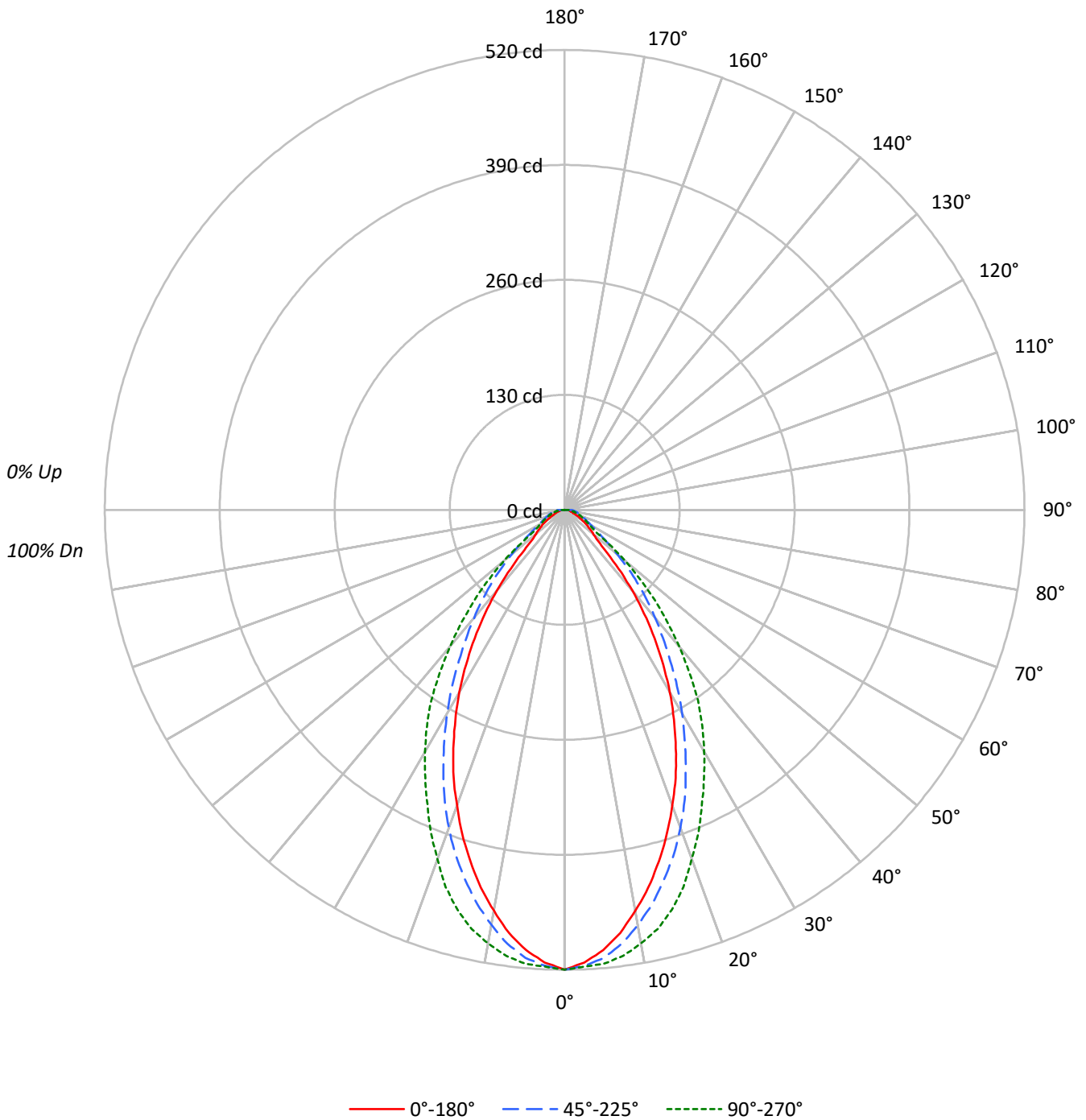
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 627.2 lumens  
Efficiency: N/A  
Efficacy: 26.7 lumens/watt  
Spacing Criteria (0/90/45): 0.82 / 0.97 / 0.94  
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 23.5  
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

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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	111	108	105	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89
2	104	98	93	88	102	96	91	87	93	89	85	90	86	83	87	84	82	80
3	97	89	83	78	95	88	82	77	85	80	76	82	78	75	80	77	74	72
4	91	82	75	70	89	81	74	69	78	73	68	76	71	68	74	70	67	65
5	86	75	68	63	84	74	68	63	72	66	62	71	65	61	69	64	61	59
6	80	70	62	57	79	69	62	57	67	61	57	66	60	56	64	59	56	54
7	76	65	57	52	74	64	57	52	62	56	52	61	56	52	60	55	51	50
8	71	60	53	48	70	59	53	48	58	52	48	57	52	48	56	51	47	46
9	67	56	49	45	66	56	49	44	55	49	44	54	48	44	53	48	44	42
10	64	53	46	41	63	52	46	41	51	45	41	50	45	41	50	45	41	39

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

	0°	45°	90°
0°	9593	9593	9593
5°	9256	9417	9541
10°	8627	8932	9327
15°	7861	8283	8942
20°	6989	7515	8249
25°	6055	6601	7480
30°	5069	5661	6725
35°	3998	4688	5920
40°	2864	3835	4851
45°	1678	3030	3755
50°	1211	2202	2532
55°	1020	1573	1325
60°	816	1273	1133
65°	668	1131	1048
70°	572	1084	982
75°	549	1162	955
80°	616	1424	1020
85°	1016	2244	1419

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 3755 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	47.6	7.6
10°-20°	122.0	19.5
20°-30°	150.0	23.9
30°-40°	132.6	21.1
40°-50°	84.6	13.5
50°-60°	41.3	6.6
60°-70°	24.6	3.9
70°-80°	15.7	2.5
80°-90°	8.7	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°	319.7	51.0
0°-40°	452.3	72.1
0°-60°	578.2	92.2
0°-90°	627.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	627.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	520	520	520	520	520	
5°	500	510	508	510	515	46
15°	412	423	434	453	468	115
25°	297	308	324	344	367	136
35°	178	187	208	237	263	110
45°	64	82	116	130	144	54
55°	32	42	49	46	41	28
65°	15	29	26	24	24	15
75°	8	17	16	14	13	8
85°	5	10	11	10	7	4
90°	0	0	0	0	0	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	519.9	519.9	519.9	519.9	519.9
2.5°	512.2	521.8	516.0	516.0	517.0
5°	499.7	510.3	508.4	510.3	515.1
7.5°	482.5	493.0	494.9	502.6	508.4
10°	460.4	471.0	476.7	489.2	497.8
12.5°	437.4	447.9	456.6	472.9	485.4
15°	411.5	423.0	433.6	452.7	468.1
17.5°	384.6	396.1	409.6	428.8	447.0
20°	355.9	366.4	382.7	400.9	420.1
22.5°	328.0	337.6	354.9	372.2	395.2
25°	297.4	307.9	324.2	344.4	367.4
27.5°	267.6	278.2	294.5	317.5	341.5
30°	237.9	247.5	265.7	289.7	315.6
32.5°	207.2	216.8	236.9	262.8	289.7
35°	177.5	187.0	208.1	236.9	262.8
37.5°	147.7	158.3	182.2	209.1	231.2
40°	118.9	131.4	159.2	182.2	201.4
42.5°	90.2	107.4	137.2	156.3	171.7
45°	64.3	82.5	116.1	130.5	143.9
47.5°	48.9	63.3	95.9	106.5	115.1
50°	42.2	51.8	76.7	84.4	88.2
52.5°	36.4	46.0	61.4	64.3	62.3
55°	31.7	42.2	48.9	46.0	41.2
57.5°	26.9	39.3	40.3	34.5	35.5
60°	22.1	35.5	34.5	29.7	30.7
62.5°	18.2	32.6	29.7	26.9	26.9
65°	15.3	28.8	25.9	24.0	24.0
67.5°	12.5	25.9	23.0	21.1	21.1
70°	10.6	23.0	20.1	18.2	18.2
72.5°	9.6	20.1	18.2	16.3	16.3
75°	7.7	17.3	16.3	14.4	13.4
77.5°	6.7	14.4	14.4	13.4	11.5
80°	5.8	12.5	13.4	11.5	9.6
82.5°	5.8	11.5	11.5	10.6	7.7
85°	4.8	9.6	10.6	9.6	6.7
87.5°	2.9	8.6	8.6	7.7	4.8
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	9.88	11.16	10.25	11.47	11.79	9.40	10.68	9.77	11.00	11.31
	3H	11.06	12.20	11.44	12.53	12.89	10.97	12.11	11.35	12.44	12.80
	4H	11.49	12.55	11.89	12.90	13.29	11.65	12.71	12.05	13.06	13.45
	6H	11.84	12.81	12.25	13.18	13.58	12.30	13.27	12.71	13.65	14.04
	8H	12.04	12.96	12.47	13.35	13.76	12.59	13.51	13.02	13.91	14.31
	12H	12.26	13.14	12.69	13.52	13.95	12.91	13.79	13.34	14.17	14.61
4H	2H	10.38	11.45	10.79	11.80	12.18	10.00	11.07	10.41	11.42	11.80
	3H	12.03	12.90	12.44	13.31	13.71	11.80	12.68	12.22	13.08	13.49
	4H	12.80	13.58	13.23	14.00	14.44	12.65	13.43	13.08	13.85	14.29
	6H	13.40	14.08	13.86	14.53	14.99	13.50	14.18	13.96	14.63	15.09
	8H	13.70	14.34	14.17	14.79	15.26	13.89	14.53	14.36	14.98	15.45
	12H	14.02	14.58	14.50	15.06	15.54	14.33	14.90	14.82	15.38	15.85
8H	4H	13.21	13.85	13.68	14.30	14.77	13.10	13.74	13.57	14.19	14.66
	6H	14.16	14.69	14.67	15.18	15.66	14.21	14.73	14.71	15.23	15.71
	8H	14.71	15.18	15.23	15.70	16.19	14.80	15.26	15.32	15.78	16.27
	12H	15.28	15.69	15.79	16.19	16.76	15.47	15.88	15.98	16.38	16.95
12H	4H	13.28	13.85	13.77	14.33	14.80	13.19	13.75	13.67	14.23	14.71
	6H	14.35	14.82	14.87	15.33	15.82	14.40	14.87	14.92	15.38	15.87
	8H	15.04	15.46	15.56	15.95	16.52	15.11	15.53	15.63	16.02	16.59