

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: P1058219

Luminaire Tested: S122RDR-H1005D840-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1058219  
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-H1005D840-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, 80 CRI LEDS  
Ballast/Driver: -

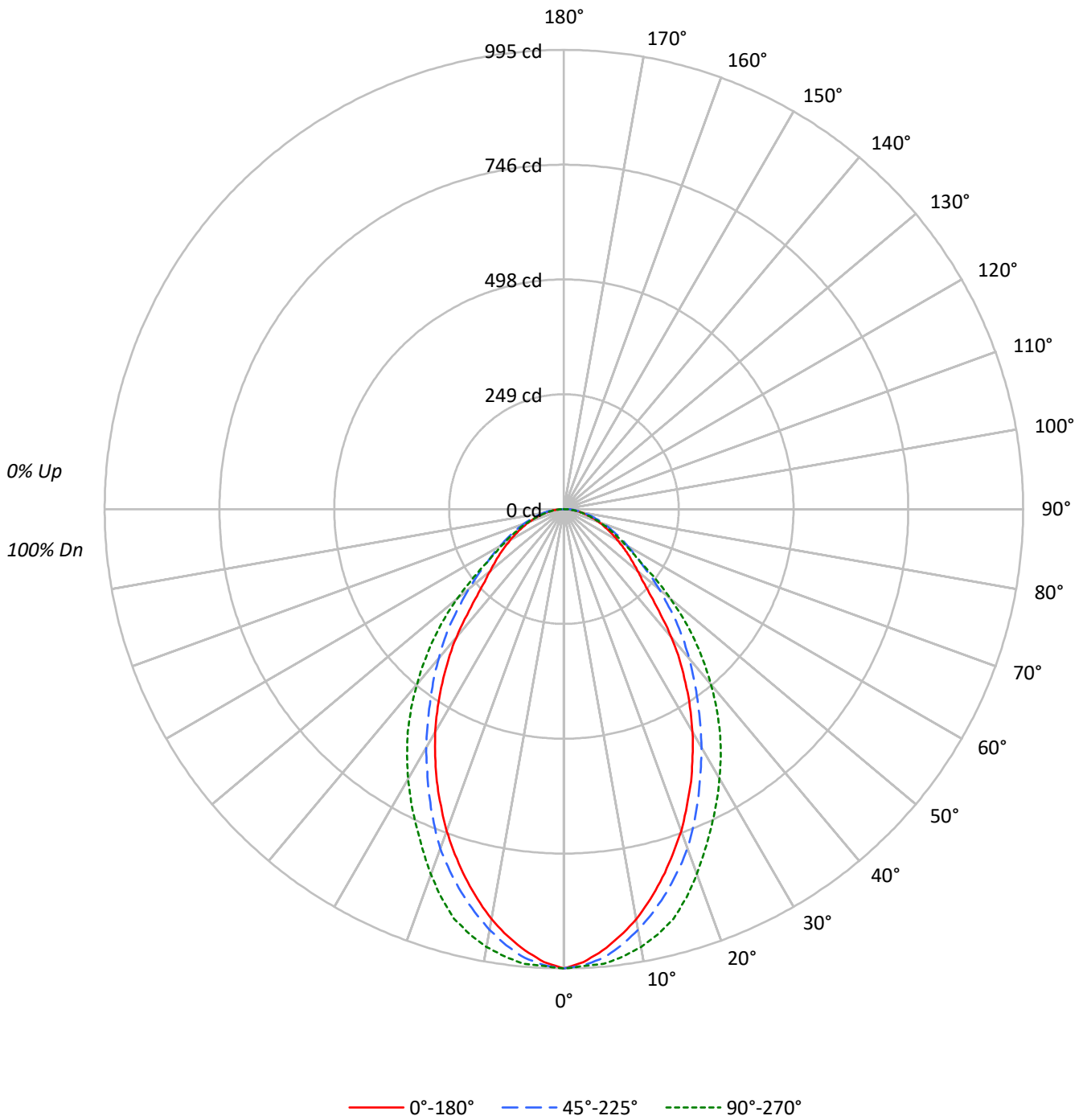
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1620.4 lumens  
Efficiency: N/A  
Efficacy: 44.4 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

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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°	18362	18362	18362
5°	17789	18084	18325
10°	16914	17347	18049
15°	15781	16416	17548
20°	14578	15372	16534
25°	13263	14026	15408
30°	11879	12710	14372
35°	10346	11356	13275
40°	8732	10158	11933
45°	6934	8969	10441
50°	5971	7711	8667
55°	5437	6598	6643
60°	4956	5864	5650
65°	4541	5296	4982
70°	4208	4910	4440
75°	3914	4634	3914
80°	3687	4452	3528
85°	3663	4594	3049

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 10441 cd/sqm



TEST NUMBER: P1058219

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	91.8	5.7
10°-20°	242.8	15.0
20°-30°	319.6	19.7
30°-40°	321.4	19.8
40°-50°	260.4	16.1
50°-60°	179.4	11.1
60°-70°	117.4	7.2
70°-80°	65.4	4.0
80°-90°	22.1	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°	654.3	40.4
0°-40°	975.6	60.2
0°-60°	1415.4	87.4
0°-90°	1620.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1620.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	995	995	995	995	995	
5°	960	979	976	981	989	90
15°	826	846	859	891	919	231
25°	651	669	689	719	757	298
35°	459	481	504	549	589	286
45°	266	296	344	374	400	210
55°	169	188	205	209	206	151
65°	104	124	121	116	114	104
75°	55	68	65	58	55	59
85°	17	23	22	19	14	19
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	995.1	995.1	995.1	995.1	995.1
2.5°	982.1	999.4	989.3	989.3	990.8
5°	960.4	979.2	976.3	980.7	989.3
7.5°	933.0	953.2	953.2	966.2	977.8
10°	902.7	922.9	925.8	946.0	963.3
12.5°	865.1	885.3	894.0	920.0	943.1
15°	826.1	846.4	859.3	891.1	918.6
17.5°	784.2	804.5	821.8	855.0	882.5
20°	742.4	761.1	782.8	811.7	842.0
22.5°	696.1	716.4	736.6	764.0	798.7
25°	651.4	668.7	688.9	719.3	756.8
27.5°	603.7	622.5	641.3	677.4	716.4
30°	557.5	576.3	596.5	634.0	674.5
32.5°	508.4	528.6	548.8	590.7	632.6
35°	459.3	480.9	504.1	548.8	589.3
37.5°	411.6	434.7	462.2	508.4	543.1
40°	362.5	387.1	421.7	462.2	495.4
42.5°	310.5	340.9	382.7	417.4	447.7
45°	265.7	296.1	343.7	374.1	400.1
47.5°	232.5	257.1	303.3	329.3	351.0
50°	208.0	226.8	268.6	287.4	301.9
52.5°	187.8	206.5	235.4	248.4	252.7
55°	169.0	187.8	205.1	209.4	206.5
57.5°	150.2	170.4	180.5	176.2	176.2
60°	134.3	156.0	158.9	153.1	153.1
62.5°	118.4	140.1	140.1	132.9	132.9
65°	104.0	124.2	121.3	115.5	114.1
67.5°	91.0	109.8	105.4	99.7	98.2
70°	78.0	95.3	91.0	83.8	82.3
72.5°	66.4	82.3	76.5	70.8	67.9
75°	54.9	67.9	65.0	57.8	54.9
77.5°	44.8	54.9	52.0	46.2	43.3
80°	34.7	43.3	41.9	36.1	33.2
82.5°	26.0	33.2	31.8	27.4	23.1
85°	17.3	23.1	21.7	18.8	14.4
87.5°	8.7	15.9	14.4	13.0	7.2
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	16.84	18.28	17.20	18.59	18.91	17.20	18.64	17.57	18.95	19.27
	3H	18.38	19.67	18.76	20.00	20.37	18.55	19.84	18.93	20.17	20.53
	4H	18.96	20.16	19.36	20.51	20.89	19.03	20.24	19.43	20.59	20.97
	6H	19.39	20.50	19.80	20.87	21.26	19.38	20.50	19.80	20.87	21.26
	8H	19.54	20.60	19.97	20.99	21.39	19.50	20.56	19.93	20.95	21.35
	12H	19.66	20.67	20.09	21.05	21.48	19.57	20.59	20.01	20.97	21.40
4H	2H	17.43	18.63	17.83	18.98	19.36	17.71	18.92	18.12	19.27	19.65
	3H	19.25	20.25	19.66	20.65	21.05	19.29	20.29	19.70	20.69	21.09
	4H	20.00	20.90	20.43	21.31	21.75	19.89	20.79	20.33	21.21	21.65
	6H	20.58	21.37	21.04	21.81	22.27	20.37	21.16	20.83	21.60	22.06
	8H	20.79	21.52	21.26	21.97	22.44	20.54	21.27	21.00	21.71	22.18
	12H	20.96	21.61	21.44	22.09	22.56	20.66	21.31	21.14	21.79	22.26
8H	4H	20.28	21.01	20.74	21.46	21.93	20.19	20.93	20.66	21.37	21.84
	6H	21.04	21.64	21.54	22.13	22.61	20.81	21.41	21.31	21.91	22.39
	8H	21.36	21.90	21.88	22.41	22.90	21.06	21.60	21.58	22.11	22.60
	12H	21.65	22.12	22.16	22.62	23.18	21.27	21.75	21.78	22.24	22.81
12H	4H	20.30	20.95	20.78	21.43	21.90	20.23	20.88	20.71	21.36	21.83
	6H	21.10	21.64	21.61	22.15	22.64	20.89	21.43	21.40	21.94	22.43
	8H	21.50	21.97	22.01	22.47	23.03	21.21	21.69	21.72	22.18	22.75