

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: P1058480

Luminaire Tested: S122RDR-H675D927-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1058480  
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-H675D927-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: 2700K CCT, 90 CRI LEDS  
Ballast/Driver: -

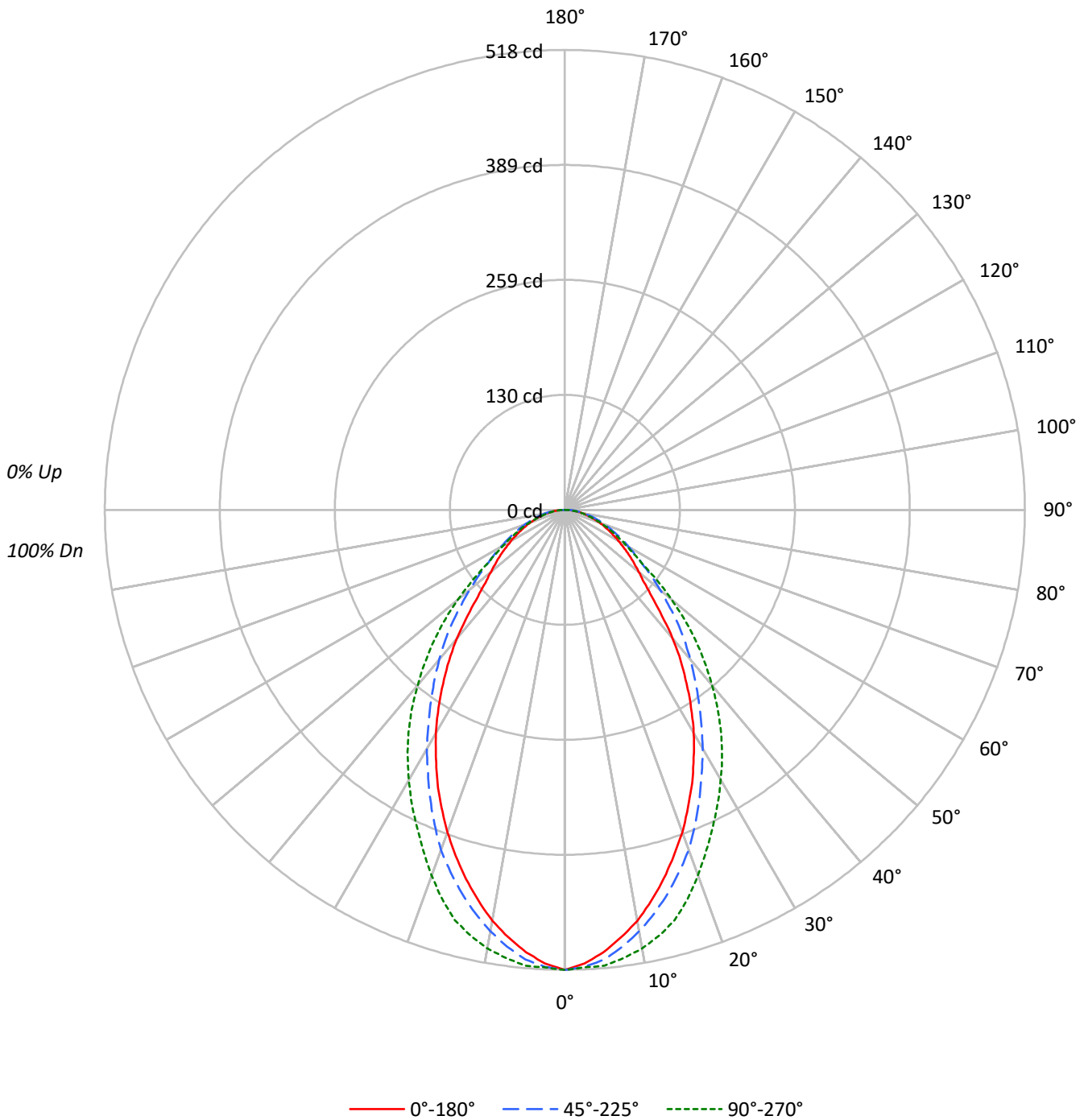
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 843.7 lumens  
Efficiency: N/A  
Efficacy: 35.9 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): 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	50	30	10
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°	9560	9560	9560
5°	9263	9417	9541
10°	8806	9033	9399
15°	8218	8549	9137
20°	7590	8004	8609
25°	6906	7303	8024
30°	6185	6618	7483
35°	5386	5913	6911
40°	4548	5290	6212
45°	3612	4671	5436
50°	3109	4016	4513
55°	2831	3436	3458
60°	2580	3052	2941
65°	2362	2759	2594
70°	2190	2557	2315
75°	2039	2410	2039
80°	1913	2317	1838
85°	1905	2392	1588

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 5436 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	47.8	5.7
10°-20°	126.4	15.0
20°-30°	166.4	19.7
30°-40°	167.3	19.8
40°-50°	135.6	16.1
50°-60°	93.4	11.1
60°-70°	61.1	7.2
70°-80°	34.1	4.0
80°-90°	11.5	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°	340.7	40.4
0°-40°	508.0	60.2
0°-60°	737.0	87.4
0°-90°	843.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	843.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	518	518	518	518	518	
5°	500	510	508	511	515	47
15°	430	441	448	464	478	120
25°	339	348	359	374	394	155
35°	239	250	262	286	307	149
45°	138	154	179	195	208	109
55°	88	98	107	109	108	79
65°	54	65	63	60	59	54
75°	29	35	34	30	29	31
85°	9	12	11	10	8	10
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	518.1	518.1	518.1	518.1	518.1
2.5°	511.4	520.4	515.1	515.1	515.9
5°	500.1	509.9	508.4	510.6	515.1
7.5°	485.8	496.3	496.3	503.1	509.1
10°	470.0	480.5	482.1	492.6	501.6
12.5°	450.5	461.0	465.5	479.0	491.1
15°	430.2	440.7	447.5	464.0	478.3
17.5°	408.4	418.9	427.9	445.2	459.5
20°	386.5	396.3	407.6	422.6	438.4
22.5°	362.5	373.0	383.5	397.8	415.9
25°	339.2	348.2	358.7	374.5	394.1
27.5°	314.3	324.1	333.9	352.7	373.0
30°	290.3	300.1	310.6	330.1	351.2
32.5°	264.7	275.2	285.8	307.6	329.4
35°	239.1	250.4	262.5	285.8	306.8
37.5°	214.3	226.4	240.6	264.7	282.8
40°	188.8	201.5	219.6	240.6	257.9
42.5°	161.7	177.5	199.3	217.3	233.1
45°	138.4	154.2	179.0	194.8	208.3
47.5°	121.1	133.9	157.9	171.5	182.7
50°	108.3	118.1	139.9	149.7	157.2
52.5°	97.8	107.5	122.6	129.3	131.6
55°	88.0	97.8	106.8	109.0	107.5
57.5°	78.2	88.7	94.0	91.7	91.7
60°	69.9	81.2	82.7	79.7	79.7
62.5°	61.7	72.9	72.9	69.2	69.2
65°	54.1	64.7	63.2	60.2	59.4
67.5°	47.4	57.2	54.9	51.9	51.1
70°	40.6	49.6	47.4	43.6	42.9
72.5°	34.6	42.9	39.9	36.8	35.3
75°	28.6	35.3	33.8	30.1	28.6
77.5°	23.3	28.6	27.1	24.1	22.6
80°	18.0	22.6	21.8	18.8	17.3
82.5°	13.5	17.3	16.5	14.3	12.0
85°	9.0	12.0	11.3	9.8	7.5
87.5°	4.5	8.3	7.5	6.8	3.8
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	14.57	16.01	14.94	16.32	16.64	14.93	16.37	15.29	16.68	17.00
	3H	16.12	17.41	16.50	17.73	18.10	16.28	17.57	16.66	17.90	18.26
	4H	16.69	17.90	17.09	18.25	18.63	16.76	17.97	17.16	18.32	18.70
	6H	17.12	18.23	17.53	18.60	18.99	17.12	18.23	17.53	18.60	18.99
	8H	17.27	18.33	17.70	18.72	19.12	17.23	18.29	17.66	18.68	19.08
	12H	17.39	18.40	17.82	18.78	19.21	17.31	18.32	17.74	18.70	19.13
4H	2H	15.16	16.37	15.56	16.72	17.10	15.45	16.65	15.85	17.00	17.38
	3H	16.98	17.98	17.39	18.38	18.79	17.02	18.02	17.43	18.42	18.82
	4H	17.73	18.63	18.16	19.05	19.49	17.62	18.52	18.06	18.94	19.38
	6H	18.31	19.10	18.77	19.54	20.00	18.11	18.89	18.57	19.33	19.80
	8H	18.52	19.26	18.99	19.70	20.17	18.27	19.00	18.74	19.45	19.92
	12H	18.69	19.34	19.17	19.82	20.30	18.39	19.04	18.87	19.52	20.00
8H	4H	18.01	18.74	18.48	19.19	19.66	17.92	18.66	18.39	19.10	19.57
	6H	18.77	19.37	19.27	19.87	20.34	18.54	19.15	19.04	19.64	20.12
	8H	19.09	19.63	19.61	20.15	20.64	18.79	19.33	19.31	19.85	20.34
	12H	19.38	19.86	19.89	20.35	20.92	19.00	19.48	19.51	19.98	20.54
12H	4H	18.03	18.68	18.52	19.16	19.64	17.96	18.61	18.44	19.09	19.56
	6H	18.83	19.37	19.35	19.88	20.37	18.62	19.16	19.14	19.68	20.16
	8H	19.23	19.71	19.74	20.20	20.77	18.94	19.42	19.45	19.91	20.48