

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: P1058382

Luminaire Tested: S122RDR-H485D840-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1058382  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-55 )  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122RDR-H485D840-X4F0-XX-UDD-WVL-W  
Description: DEFINE 2 WHITE REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: -

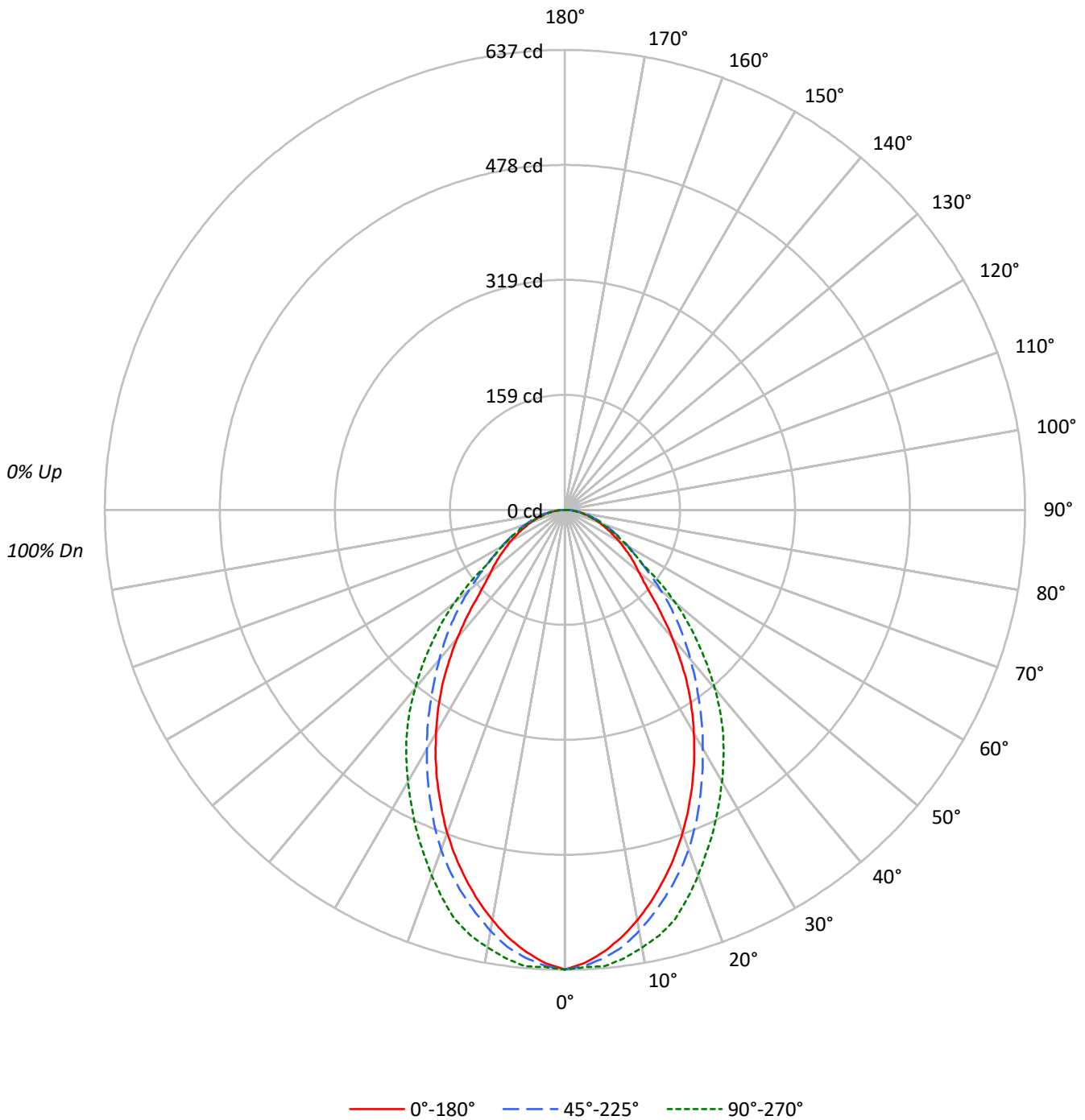
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1037.9 lumens  
Efficiency: N/A  
Efficacy: 59.7 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): 17.4  
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	100	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	80	84	81	78	76				
3	94	85	78	73	92	84	77	72	81	75	71	78	74	70	76	72	68	67				
4	88	77	69	64	85	76	69	63	73	67	62	71	66	62	69	65	61	59				
5	81	70	62	56	80	69	62	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	46	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	40	35	46	39	35	45	39	35	44	38	34	33				

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

	0°	45°	90°
0°	11749	11749	11749
5°	11386	11540	11755
10°	10813	11096	11531
15°	10123	10501	11221
20°	9357	9840	10580
25°	8502	9003	9923
30°	7600	8139	9262
35°	6661	7294	8605
40°	5574	6513	7766
45°	4465	5770	6787
50°	3832	4972	5698
55°	3500	4227	4208
60°	3185	3738	3665
65°	2899	3349	3196
70°	2660	3064	2843
75°	2488	2830	2488
80°	2327	2614	2178
85°	2329	2752	1884

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 6787 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	58.8	5.7
10°-20°	155.6	15.0
20°-30°	205.2	19.8
30°-40°	206.7	19.9
40°-50°	168.2	16.2
50°-60°	114.7	11.0
60°-70°	74.4	7.2
70°-80°	41.0	3.9
80°-90°	13.4	1.3
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°	419.6	40.4
0°-40°	626.3	60.3
0°-60°	909.1	87.6
0°-90°	1037.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1037.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	637	637	637	637	637	
5°	615	626	623	628	635	58
15°	530	544	550	572	587	148
25°	418	431	442	462	487	191
35°	296	311	324	352	382	184
45°	171	192	221	240	260	135
55°	109	120	131	132	131	97
65°	66	79	77	73	73	66
75°	35	43	40	36	35	37
85°	11	14	13	10	9	12
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	636.7	636.7	636.7	636.7	636.7
2.5°	628.4	638.7	631.9	632.5	633.9
5°	614.7	626.4	623.0	628.4	634.6
7.5°	597.6	609.3	610.6	618.9	626.4
10°	577.1	590.1	592.2	604.5	615.4
12.5°	554.5	568.9	571.6	589.4	603.8
15°	529.9	543.6	549.7	572.3	587.4
17.5°	503.8	516.9	526.4	547.0	564.1
20°	476.5	488.8	501.1	519.6	538.8
22.5°	447.0	460.7	472.4	490.8	512.7
25°	417.6	431.3	442.2	462.1	487.4
27.5°	387.5	401.2	412.1	433.3	460.7
30°	356.7	371.0	382.0	406.0	434.7
32.5°	326.5	340.9	353.2	378.6	408.7
35°	295.7	310.8	323.8	351.9	382.0
37.5°	262.9	280.0	296.4	324.5	353.9
40°	231.4	250.6	270.4	296.4	322.4
42.5°	199.9	221.1	245.8	267.7	291.6
45°	171.1	192.4	221.1	240.3	260.1
47.5°	148.6	166.4	197.2	212.9	230.7
50°	133.5	145.8	173.2	185.5	198.5
52.5°	121.2	131.4	150.6	158.8	165.7
55°	108.8	119.8	131.4	132.1	130.8
57.5°	96.5	108.8	115.0	110.2	113.0
60°	86.3	98.6	101.3	96.5	99.3
62.5°	75.3	89.0	89.0	84.2	85.6
65°	66.4	78.7	76.7	72.6	73.2
67.5°	57.5	69.8	66.4	62.3	62.3
70°	49.3	60.9	56.8	52.7	52.7
72.5°	41.8	51.3	48.6	43.8	43.1
75°	34.9	43.1	39.7	35.6	34.9
77.5°	28.1	34.9	32.2	28.8	27.4
80°	21.9	28.1	24.6	21.9	20.5
82.5°	16.4	21.2	18.5	15.7	14.4
85°	11.0	14.4	13.0	10.3	8.9
87.5°	5.5	9.6	8.2	6.8	5.5
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	15.28	16.71	15.64	17.03	17.34	15.53	16.96	15.89	17.28	17.59
	3H	16.80	18.09	17.18	18.42	18.78	16.88	18.17	17.26	18.50	18.86
	4H	17.37	18.57	17.77	18.92	19.30	17.36	18.57	17.77	18.92	19.30
	6H	17.79	18.90	18.20	19.27	19.66	17.71	18.82	18.13	19.19	19.59
	8H	17.94	19.00	18.37	19.39	19.79	17.82	18.88	18.25	19.27	19.67
	12H	18.06	19.07	18.49	19.45	19.88	17.89	18.90	18.32	19.28	19.71
4H	2H	15.85	17.05	16.25	17.40	17.78	16.05	17.25	16.45	17.60	17.98
	3H	17.65	18.65	18.06	19.05	19.45	17.62	18.62	18.04	19.02	19.43
	4H	18.39	19.29	18.83	19.71	20.15	18.22	19.12	18.65	19.53	19.97
	6H	18.98	19.76	19.44	20.21	20.67	18.69	19.47	19.15	19.91	20.37
	8H	19.19	19.92	19.66	20.37	20.83	18.84	19.57	19.30	20.01	20.48
	12H	19.36	20.01	19.84	20.49	20.96	18.95	19.60	19.43	20.08	20.55
8H	4H	18.66	19.39	19.13	19.83	20.30	18.51	19.24	18.97	19.68	20.15
	6H	19.42	20.02	19.91	20.51	20.99	19.10	19.70	19.60	20.19	20.67
	8H	19.74	20.28	20.26	20.79	21.28	19.32	19.86	19.84	20.37	20.86
	12H	20.02	20.50	20.53	20.99	21.56	19.50	19.98	20.02	20.47	21.04
12H	4H	18.67	19.32	19.16	19.80	20.28	18.54	19.19	19.03	19.67	20.14
	6H	19.46	20.00	19.98	20.51	21.00	19.17	19.71	19.68	20.22	20.71
	8H	19.86	20.34	20.37	20.83	21.40	19.45	19.93	19.96	20.42	20.99