

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: P1058409

Luminaire Tested: S122RDR-H485D930-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058409
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-H485D930-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: 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

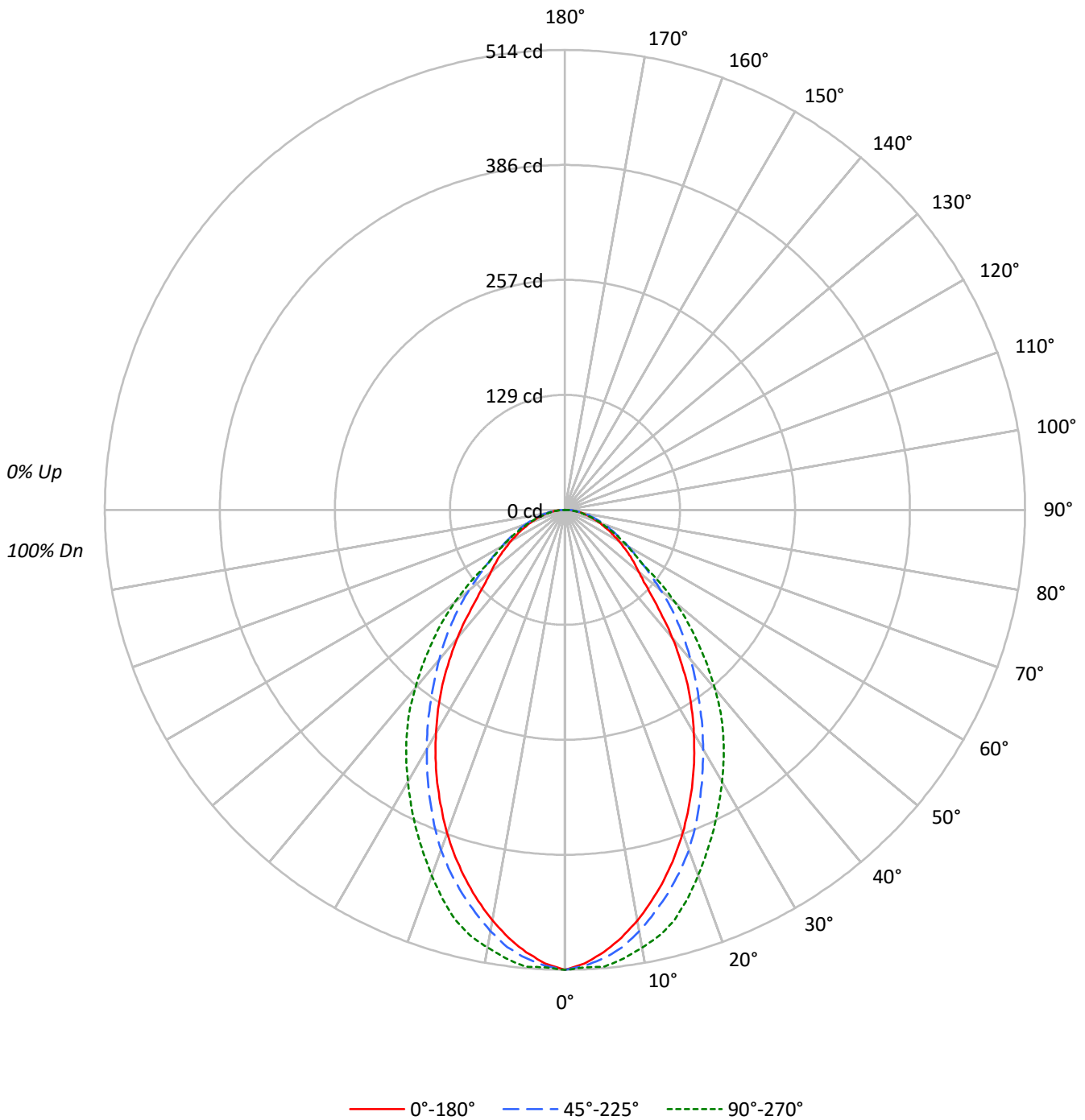
Lumens per Lamp: N/A
Luminaire Lumens: 838.0 lumens
Efficiency: N/A
Efficacy: 48.2 lumens/watt
Spacing Criteria (0/90/45): 0.91 / 1.05 / 1.05
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

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°	9485	9485	9485
5°	9193	9315	9489
10°	8730	8958	9310
15°	8172	8478	9059
20°	7554	7945	8542
25°	6863	7269	8012
30°	6134	6571	7479
35°	5379	5888	6947
40°	4500	5258	6270
45°	3606	4658	5480
50°	3095	4013	4602
55°	2828	3413	3397
60°	2569	3019	2956
65°	2340	2703	2580
70°	2147	2476	2298
75°	2011	2289	2011
80°	1881	2115	1764
85°	1863	2223	1524

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 5480 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	47.4	5.7
10°-20°	125.6	15.0
20°-30°	165.7	19.8
30°-40°	166.8	19.9
40°-50°	135.8	16.2
50°-60°	92.6	11.0
60°-70°	60.1	7.2
70°-80°	33.1	4.0
80°-90°	10.8	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°	338.8	40.4
0°-40°	505.6	60.3
0°-60°	734.0	87.6
0°-90°	838.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	838.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	514	514	514	514	514	
5°	496	506	503	507	512	46
15°	428	439	444	462	474	120
25°	337	348	357	373	394	155
35°	239	251	261	284	308	148
45°	138	155	178	194	210	109
55°	88	97	106	107	106	79
65°	54	64	62	59	59	53
75°	28	35	32	29	28	30
85°	9	12	10	8	7	10
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	514.0	514.0	514.0	514.0	514.0
2.5°	507.4	515.6	510.1	510.7	511.8
5°	496.3	505.7	502.9	507.4	512.3
7.5°	482.5	491.9	493.0	499.6	505.7
10°	465.9	476.4	478.1	488.0	496.9
12.5°	447.7	459.3	461.5	475.9	487.5
15°	427.8	438.8	443.8	462.0	474.2
17.5°	406.8	417.3	425.0	441.6	455.4
20°	384.7	394.6	404.6	419.5	435.0
22.5°	360.9	372.0	381.3	396.3	414.0
25°	337.1	348.2	357.0	373.1	393.5
27.5°	312.8	323.9	332.7	349.8	372.0
30°	287.9	299.6	308.4	327.7	351.0
32.5°	263.6	275.2	285.2	305.6	329.9
35°	238.8	250.9	261.4	284.1	308.4
37.5°	212.2	226.0	239.3	262.0	285.7
40°	186.8	202.3	218.3	239.3	260.3
42.5°	161.4	178.5	198.4	216.1	235.4
45°	138.2	155.3	178.5	194.0	210.0
47.5°	119.9	134.3	159.2	171.9	186.3
50°	107.8	117.7	139.8	149.8	160.3
52.5°	97.8	106.1	121.6	128.2	133.7
55°	87.9	96.7	106.1	106.7	105.6
57.5°	77.9	87.9	92.9	89.0	91.2
60°	69.6	79.6	81.8	77.9	80.1
62.5°	60.8	71.8	71.8	68.0	69.1
65°	53.6	63.6	61.9	58.6	59.1
67.5°	46.4	56.4	53.6	50.3	50.3
70°	39.8	49.2	45.9	42.6	42.6
72.5°	33.7	41.5	39.2	35.4	34.8
75°	28.2	34.8	32.1	28.7	28.2
77.5°	22.7	28.2	26.0	23.2	22.1
80°	17.7	22.7	19.9	17.7	16.6
82.5°	13.3	17.1	14.9	12.7	11.6
85°	8.8	11.6	10.5	8.3	7.2
87.5°	4.4	7.7	6.6	5.5	4.4
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	14.54	15.97	14.90	16.29	16.60	14.78	16.22	15.15	16.53	16.85
	3H	16.06	17.35	16.44	17.68	18.04	16.14	17.43	16.52	17.76	18.12
	4H	16.63	17.83	17.03	18.18	18.56	16.62	17.83	17.02	18.18	18.56
	6H	17.05	18.16	17.46	18.53	18.92	16.97	18.08	17.38	18.45	18.84
	8H	17.20	18.26	17.63	18.65	19.05	17.08	18.14	17.51	18.53	18.93
	12H	17.32	18.33	17.75	18.71	19.14	17.15	18.16	17.58	18.54	18.97
4H	2H	15.11	16.31	15.51	16.66	17.04	15.31	16.51	15.71	16.86	17.24
	3H	16.91	17.91	17.32	18.31	18.71	16.88	17.88	17.29	18.28	18.68
	4H	17.65	18.55	18.09	18.97	19.41	17.48	18.37	17.91	18.79	19.23
	6H	18.24	19.02	18.70	19.46	19.93	17.94	18.72	18.40	19.17	19.63
	8H	18.45	19.18	18.92	19.63	20.09	18.09	18.82	18.56	19.27	19.74
	12H	18.62	19.27	19.10	19.75	20.22	18.20	18.85	18.69	19.33	19.80
8H	4H	17.92	18.65	18.38	19.09	19.56	17.77	18.50	18.23	18.94	19.41
	6H	18.68	19.28	19.17	19.77	20.25	18.36	18.96	18.86	19.45	19.93
	8H	19.00	19.54	19.52	20.05	20.54	18.58	19.12	19.09	19.63	20.12
	12H	19.28	19.76	19.79	20.25	20.82	18.76	19.24	19.27	19.73	20.30
12H	4H	17.93	18.58	18.42	19.06	19.53	17.80	18.45	18.28	18.93	19.40
	6H	18.72	19.26	19.24	19.77	20.26	18.42	18.96	18.94	19.48	19.97
	8H	19.12	19.59	19.63	20.09	20.65	18.71	19.19	19.22	19.68	20.25