

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: P1058457

Luminaire Tested: S122RDR-H675D840-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058457
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-57)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDR-H675D840-X4F0-XX-UDD-BVL-W
Description: DEFINE 2 WHITE REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

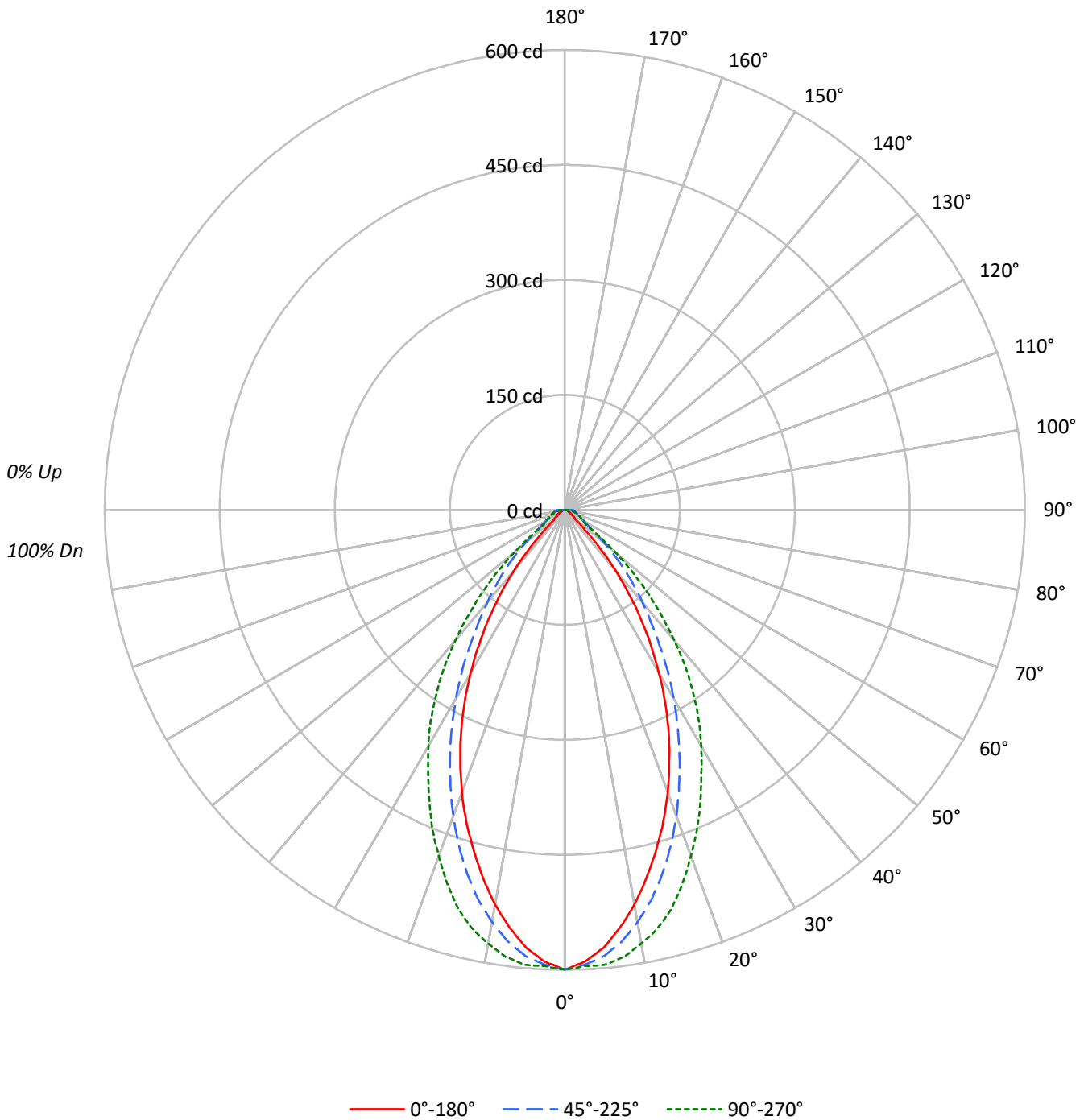
Lumens per Lamp: N/A
Luminaire Lumens: 652.8 lumens
Efficiency: N/A
Efficacy: 27.8 lumens/watt
Spacing Criteria (0/90/45): 0.78 / 0.96 / 0.91
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

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	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				
1	112	108	105	102	109	106	103	101	102	100	97	98	96	95	95	93	92	90				
2	105	99	94	90	102	97	92	89	94	90	87	91	87	85	88	85	83	81				
3	98	91	85	80	96	89	84	79	86	82	78	84	80	76	81	78	75	74				
4	92	83	77	72	90	82	76	71	80	75	70	78	73	70	76	72	69	67				
5	87	77	70	65	85	76	70	65	74	69	64	72	67	64	71	66	63	61				
6	82	72	65	60	80	71	64	59	69	63	59	68	62	58	66	62	58	56				
7	77	67	60	55	76	66	59	55	64	59	54	63	58	54	62	57	54	52				
8	73	62	55	51	72	62	55	51	60	54	50	59	54	50	58	53	50	48				
9	69	58	52	47	68	58	51	47	57	51	47	56	50	47	55	50	46	45				
10	66	55	48	44	64	54	48	44	53	48	44	53	47	43	52	47	43	42				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11066	11066	11066
5°	10628	10825	11038
10°	9800	10230	10770
15°	8780	9386	10283
20°	7707	8348	9439
25°	6525	7209	8519
30°	5233	6051	7585
35°	3870	4841	6571
40°	2428	3791	5340
45°	952	2855	3956
50°	468	1929	2423
55°	370	1264	1081
60°	284	1026	993
65°	210	965	965
70°	259	982	982
75°	271	1098	1027
80°	404	1424	1126
85°	805	2435	1630

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 87.5°
 Luminance: 4484 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	54.8	8.4
10°-20°	138.5	21.2
20°-30°	165.7	25.4
30°-40°	139.4	21.4
40°-50°	79.4	12.2
50°-60°	31.3	4.8
60°-70°	19.7	3.0
70°-80°	14.7	2.2
80°-90°	9.3	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°	358.9	55.0
0°-40°	498.4	76.3
0°-60°	609.1	93.3
0°-90°	652.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	652.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	600	600	600	600	600	
5°	574	586	584	591	596	53
15°	460	476	491	520	538	128
25°	320	335	354	390	418	146
35°	172	187	215	261	292	107
45°	36	64	109	137	152	34
55°	12	25	39	40	34	10
65°	5	22	22	21	22	5
75°	4	15	15	14	14	4
85°	4	11	12	11	8	3
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	599.7	599.7	599.7	599.7	599.7
2.5°	590.1	600.7	594.0	594.9	595.9
5°	573.8	586.3	584.4	591.1	595.9
7.5°	549.8	563.3	568.1	579.6	588.2
10°	523.0	538.3	546.0	564.2	574.8
12.5°	492.2	509.5	521.0	544.1	559.4
15°	459.6	475.9	491.3	520.1	538.3
17.5°	427.0	443.3	459.6	491.3	510.5
20°	392.5	407.8	425.1	458.7	480.7
22.5°	356.0	372.3	389.6	424.1	451.0
25°	320.5	334.9	354.1	390.5	418.4
27.5°	283.1	297.5	318.6	356.0	385.7
30°	245.6	260.0	284.0	322.4	356.0
32.5°	208.2	223.6	249.5	291.7	325.3
35°	171.8	187.1	214.9	261.0	291.7
37.5°	136.3	153.5	184.2	229.3	258.1
40°	100.8	120.9	157.4	197.7	221.7
42.5°	67.2	92.1	132.4	166.0	186.2
45°	36.5	64.3	109.4	137.2	151.6
47.5°	20.2	41.3	87.3	109.4	118.0
50°	16.3	28.8	67.2	83.5	84.4
52.5°	13.4	25.9	49.9	59.5	54.7
55°	11.5	24.9	39.3	40.3	33.6
57.5°	9.6	24.0	32.6	28.8	28.8
60°	7.7	24.0	27.8	25.9	26.9
62.5°	5.8	24.0	24.9	23.0	24.0
65°	4.8	22.1	22.1	21.1	22.1
67.5°	4.8	20.2	20.2	19.2	20.2
70°	4.8	19.2	18.2	18.2	18.2
72.5°	3.8	17.3	17.3	16.3	16.3
75°	3.8	15.4	15.4	14.4	14.4
77.5°	3.8	14.4	14.4	13.4	12.5
80°	3.8	12.5	13.4	12.5	10.6
82.5°	3.8	11.5	12.5	11.5	8.6
85°	3.8	10.6	11.5	10.6	7.7
87.5°	2.9	10.6	10.6	8.6	5.8
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	6.05	7.27	6.41	7.58	7.90	8.07	9.29	8.44	9.60	9.92
	3H	7.59	8.68	7.97	9.01	9.38	10.04	11.13	10.42	11.46	11.82
	4H	8.15	9.16	8.55	9.51	9.89	10.96	11.97	11.36	12.32	12.71
	6H	8.70	9.63	9.11	10.00	10.39	11.84	12.77	12.26	13.14	13.54
	8H	8.99	9.87	9.42	10.26	10.67	12.25	13.13	12.68	13.52	13.92
	12H	9.34	10.19	9.78	10.57	11.00	12.69	13.53	13.12	13.91	14.34
4H	2H	7.23	8.25	7.64	8.60	8.98	8.69	9.70	9.10	10.05	10.44
	3H	9.44	10.27	9.85	10.67	11.08	10.93	11.77	11.35	12.17	12.58
	4H	10.49	11.24	10.93	11.66	12.10	12.00	12.75	12.44	13.17	13.62
	6H	11.38	12.03	11.85	12.48	12.95	13.12	13.77	13.58	14.21	14.68
	8H	11.76	12.37	12.23	12.82	13.29	13.64	14.25	14.11	14.69	15.16
	12H	12.18	12.72	12.67	13.20	13.68	14.22	14.75	14.70	15.24	15.71
8H	4H	11.29	11.90	11.76	12.34	12.82	12.50	13.10	12.97	13.55	14.02
	6H	12.67	13.17	13.17	13.66	14.15	13.90	14.39	14.40	14.89	15.37
	8H	13.39	13.83	13.91	14.35	14.84	14.63	15.08	15.16	15.60	16.09
	12H	14.14	14.53	14.65	15.03	15.60	15.47	15.86	15.98	16.36	16.93
12H	4H	11.45	11.99	11.94	12.47	12.95	12.60	13.13	13.09	13.62	14.09
	6H	13.00	13.45	13.52	13.96	14.46	14.11	14.56	14.64	15.08	15.57
	8H	13.91	14.31	14.43	14.80	15.38	15.00	15.39	15.51	15.89	16.46