

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1055147

Luminaire Tested: S122R3DR-S1005D835-X4F0-XX-UDD-F-S

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1055147
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-3)
Test Lab: INNOVATION CENTER
Issue Date: 7/25/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122R3DR-S1005D835-X4F0-XX-UDD-F-S
Description: DEFINE 2, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

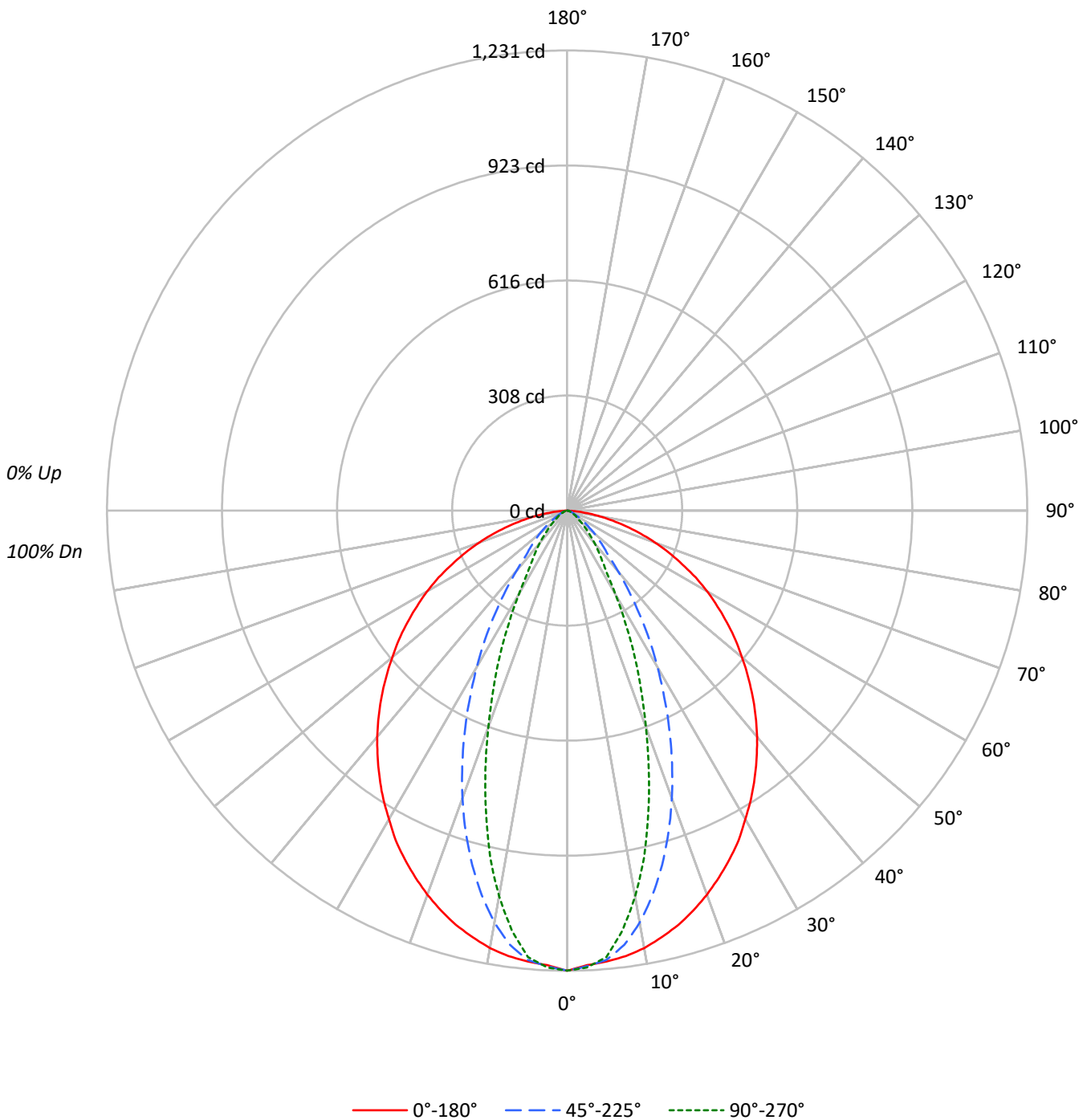
Lumens per Lamp: N/A
Luminaire Lumens: 1410.3 lumens
Efficiency: N/A
Efficacy: 33.7 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.64 / 0.81
Luminous Opening: Rectangular (W 0.15' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 41.9
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	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	100	102	99	97	98	96	94	94	93	92	90
2	104	98	93	88	102	96	91	87	93	89	85	90	86	83	87	84	82	80
3	97	89	83	78	95	88	82	77	85	80	76	82	78	74	80	76	73	71
4	91	81	74	69	89	80	74	69	78	72	68	76	71	67	74	70	66	64
5	85	75	67	62	83	74	67	62	72	66	61	70	65	61	68	64	60	58
6	80	69	62	56	78	68	61	56	66	60	56	65	59	55	63	59	55	53
7	75	64	57	52	74	63	56	51	62	56	51	60	55	51	59	54	50	49
8	71	59	52	47	69	59	52	47	58	51	47	56	51	47	55	50	47	45
9	67	56	49	44	66	55	48	44	54	48	44	53	47	43	52	47	43	42
10	63	52	45	41	62	52	45	41	51	45	41	50	44	40	49	44	40	39

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	23317	23317	23317
5°	23031	22945	22803
10°	22863	21527	20165
15°	22511	19257	16446
20°	22045	16510	12406
25°	21502	13525	8859
30°	20853	10558	5642
35°	20231	7743	3768
40°	19546	5221	2834
45°	18790	3676	2020
50°	18003	2800	1424
55°	17236	1942	1047
60°	16400	1315	856
65°	15211	946	677
70°	13871	753	587
75°	12034	659	439
80°	9547	491	491
85°	5239	652	326

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 18790 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	112.5	8.0
10°-20°	276.2	19.6
20°-30°	315.5	22.4
30°-40°	267.5	19.0
40°-50°	199.6	14.2
50°-60°	129.0	9.1
60°-70°	71.9	5.1
70°-80°	31.6	2.2
80°-90°	6.5	0.5
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°	704.2	49.9
0°-40°	971.7	68.9
0°-60°	1300.3	92.2
0°-90°	1410.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1410.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1231	1231	1231	1231	1231	
5°	1211	1226	1206	1194	1199	115
15°	1148	1119	982	878	838	323
25°	1029	908	647	474	424	473
35°	875	659	335	182	163	547
45°	701	416	137	89	75	541
55°	522	198	59	36	32	467
65°	339	72	21	17	15	337
75°	164	15	9	8	6	175
85°	24	2	3	2	2	34
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1230.7	1230.7	1230.7	1230.7	1230.7
2.5°	1217.1	1235.2	1220.1	1220.1	1223.1
5°	1211.0	1226.1	1206.5	1194.5	1199.0
7.5°	1202.0	1212.6	1171.8	1135.6	1132.6
10°	1188.4	1192.9	1119.0	1063.2	1048.2
12.5°	1168.8	1158.3	1054.2	975.8	950.1
15°	1147.7	1119.0	981.8	877.7	838.5
17.5°	1122.1	1070.8	901.9	775.2	726.9
20°	1093.4	1021.0	818.9	668.1	615.3
22.5°	1061.7	965.2	733.0	567.1	514.3
25°	1028.6	907.9	647.0	473.6	423.8
27.5°	993.9	847.6	562.5	389.1	334.8
30°	953.2	785.7	482.6	307.7	257.9
32.5°	915.4	720.9	408.7	238.3	196.1
35°	874.7	659.1	334.8	182.5	162.9
37.5°	832.5	597.2	270.0	153.8	137.2
40°	790.3	535.4	211.1	129.7	114.6
42.5°	746.5	475.1	162.9	108.6	93.5
45°	701.3	416.3	137.2	89.0	75.4
47.5°	656.0	357.4	114.6	70.9	60.3
50°	610.8	301.6	95.0	55.8	48.3
52.5°	567.1	248.8	75.4	45.2	39.2
55°	521.8	197.6	58.8	36.2	31.7
57.5°	476.6	153.8	45.2	30.2	27.1
60°	432.8	116.1	34.7	24.1	22.6
62.5°	387.6	93.5	27.1	19.6	18.1
65°	339.3	72.4	21.1	16.6	15.1
67.5°	295.6	52.8	16.6	13.6	12.1
70°	250.4	36.2	13.6	12.1	10.6
72.5°	206.6	22.6	10.6	9.0	9.0
75°	164.4	15.1	9.0	7.5	6.0
77.5°	125.2	9.0	6.0	6.0	4.5
80°	87.5	6.0	4.5	4.5	4.5
82.5°	54.3	4.5	3.0	3.0	3.0
85°	24.1	1.5	3.0	1.5	1.5
87.5°	4.5	1.5	1.5	1.5	1.5
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	19.19	20.51	19.56	20.82	21.14	5.51	6.83	5.87	7.14	7.45
	3H	21.66	22.83	22.04	23.16	23.53	6.36	7.53	6.74	7.86	8.23
	4H	22.62	23.71	23.02	24.06	24.44	6.63	7.72	7.03	8.07	8.46
	6H	23.31	24.31	23.72	24.68	25.07	6.82	7.82	7.23	8.19	8.59
	8H	23.50	24.45	23.93	24.84	25.25	6.89	7.84	7.32	8.23	8.64
	12H	23.58	24.49	24.02	24.87	25.30	6.92	7.83	7.35	8.21	8.64
4H	2H	18.98	20.07	19.38	20.42	20.80	6.08	7.17	6.48	7.52	7.90
	3H	21.46	22.36	21.87	22.76	23.16	7.11	8.01	7.53	8.41	8.81
	4H	22.41	23.21	22.84	23.62	24.07	7.47	8.28	7.91	8.69	9.14
	6H	23.16	23.85	23.62	24.30	24.76	7.76	8.45	8.23	8.90	9.37
	8H	23.40	24.05	23.87	24.49	24.97	7.86	8.51	8.33	8.95	9.42
	12H	23.53	24.10	24.02	24.58	25.06	7.91	8.47	8.39	8.96	9.43
8H	4H	22.27	22.92	22.74	23.36	23.84	7.85	8.49	8.31	8.94	9.41
	6H	23.01	23.54	23.51	24.03	24.51	8.20	8.73	8.70	9.22	9.70
	8H	23.26	23.73	23.78	24.24	24.73	8.34	8.81	8.86	9.32	9.82
	12H	23.41	23.82	23.92	24.31	24.89	8.42	8.83	8.94	9.33	9.90
12H	4H	22.23	22.80	22.71	23.28	23.75	7.97	8.53	8.45	9.02	9.49
	6H	22.95	23.42	23.47	23.94	24.43	8.32	8.79	8.84	9.31	9.80
	8H	23.22	23.63	23.73	24.12	24.70	8.50	8.91	9.01	9.41	9.98