

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: P1056392

Luminaire Tested: S125R3DR-S1270D840-X4F0-XX-UDD-F-S

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056392
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-12)
Test Lab: INNOVATION CENTER
Issue Date: 7/25/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S125R3DR-S1270D840-X4F0-XX-UDD-F-S
Description: DEFINE 5, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

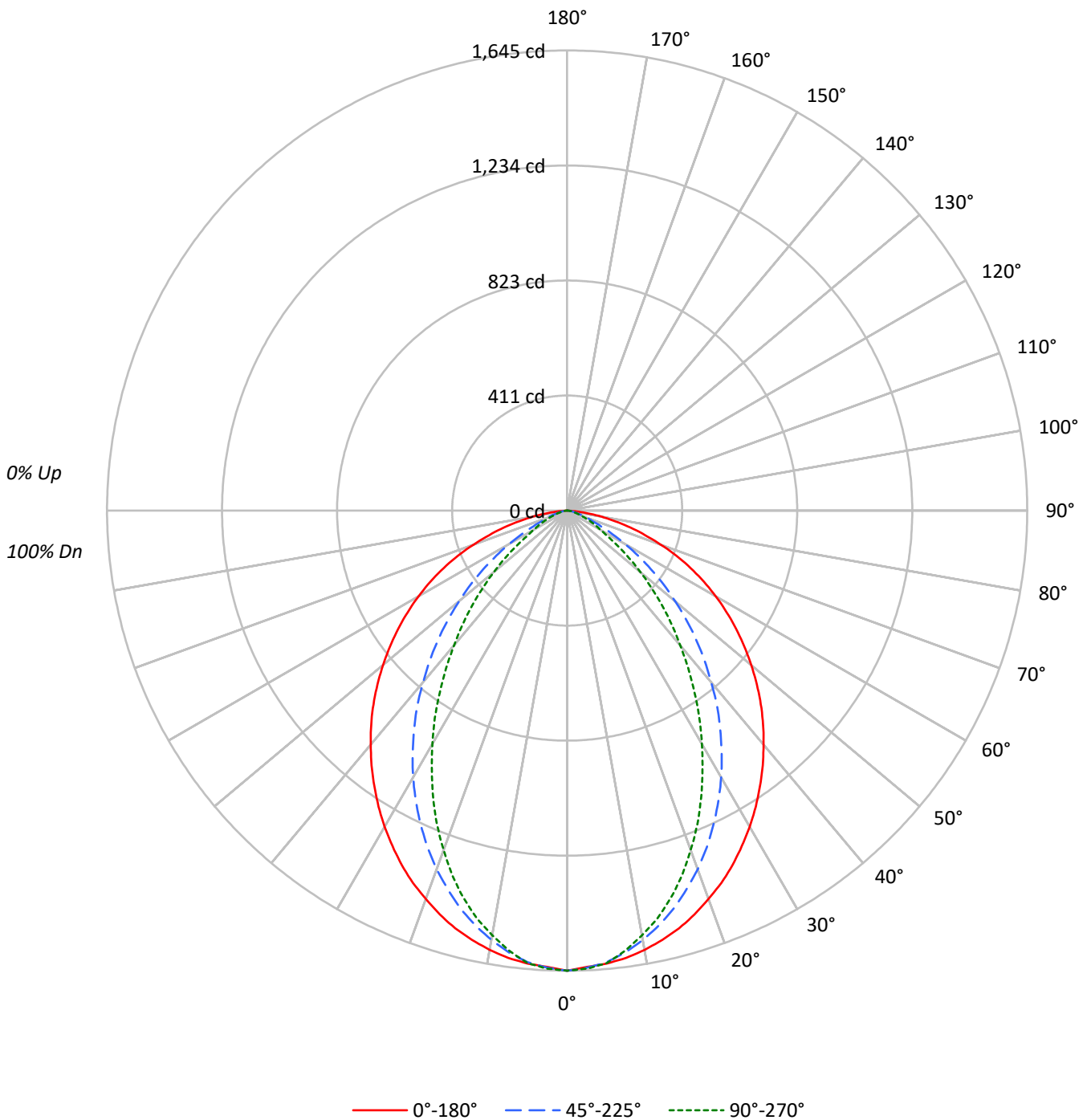
Lumens per Lamp: N/A
Luminaire Lumens: 2973.0 lumens
Efficiency: N/A
Efficacy: 71.0 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.95 / 1.11
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 41.9
Input Voltage (V): 120
Input Current (A_{in}): 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	50	30	10	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	111	107	103	100	108	105	102	99	101	98	96	97	95	93	93	92	90	88					88			
2	102	96	90	85	100	94	89	84	90	86	82	87	84	80	84	81	79	77					77			
3	95	86	79	73	92	84	78	73	81	76	71	79	74	70	76	72	69	67					67			
4	88	77	70	64	86	76	69	63	74	67	62	71	66	62	69	65	61	59					59			
5	81	70	62	56	79	69	61	56	67	60	55	65	59	55	63	58	54	52					52			
6	76	64	56	50	74	63	55	50	61	54	49	60	54	49	58	53	49	47					47			
7	71	58	50	45	69	58	50	45	56	49	44	55	49	44	54	48	44	42					42			
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38					38			
9	62	50	42	37	61	49	42	37	48	41	37	47	41	37	46	41	36	35					35			
10	58	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32					32			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11628	11628	11628
5°	11532	11500	11522
10°	11447	11185	11064
15°	11314	10779	10489
20°	11114	10266	9716
25°	10905	9658	8838
30°	10654	8989	7870
35°	10371	8228	6848
40°	10077	7393	5791
45°	9791	6517	4797
50°	9447	5544	3769
55°	9085	4505	2741
60°	8678	3359	1960
65°	8153	2216	1529
70°	7367	1542	1071
75°	6405	1000	833
80°	5024	745	684
85°	2596	616	495

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 9791 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	153.2	5.2
10°-20°	416.5	14.0
20°-30°	576.0	19.4
30°-40°	610.2	20.5
40°-50°	532.6	17.9
50°-60°	378.8	12.7
60°-70°	210.7	7.1
70°-80°	81.0	2.7
80°-90°	14.0	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°	1145.7	38.5
0°-40°	1755.9	59.1
0°-60°	2667.3	89.7
0°-90°	2973.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2973.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1645	1645	1645	1645	1645	
5°	1625	1637	1620	1616	1624	154
15°	1546	1532	1473	1441	1433	435
25°	1398	1351	1238	1162	1133	644
35°	1202	1119	953	838	794	752
45°	979	862	652	521	480	755
55°	737	591	366	253	222	659
65°	487	320	132	98	91	482
75°	234	91	37	30	30	249
85°	32	9	8	6	6	47
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1644.9	1644.9	1644.9	1644.9	1644.9
2.5°	1632.7	1649.4	1635.7	1637.3	1638.8
5°	1625.1	1637.3	1620.5	1615.9	1623.6
7.5°	1612.9	1622.0	1593.1	1582.4	1587.0
10°	1594.6	1597.7	1558.1	1542.8	1541.3
12.5°	1571.8	1567.2	1518.5	1494.1	1492.6
15°	1545.9	1532.2	1472.8	1440.8	1433.2
17.5°	1513.9	1492.6	1419.5	1378.3	1366.2
20°	1477.3	1448.4	1364.6	1311.3	1291.5
22.5°	1440.8	1401.2	1303.7	1236.7	1215.4
25°	1398.1	1350.9	1238.2	1162.1	1133.1
27.5°	1352.5	1296.1	1171.2	1082.9	1047.8
30°	1305.2	1239.7	1101.2	1002.2	964.1
32.5°	1255.0	1180.3	1028.0	919.9	880.3
35°	1201.7	1119.4	953.4	837.7	793.5
37.5°	1148.4	1057.0	880.3	756.9	711.3
40°	1092.0	993.0	801.1	674.7	627.5
42.5°	1037.2	927.5	726.5	597.0	554.4
45°	979.3	862.0	651.9	520.9	479.8
47.5°	919.9	793.5	577.2	449.3	408.2
50°	859.0	726.5	504.1	379.2	342.7
52.5°	798.1	659.5	435.6	312.2	280.2
55°	737.1	590.9	365.5	252.8	222.4
57.5°	676.2	523.9	300.0	198.0	170.6
60°	613.8	455.4	237.6	146.2	138.6
62.5°	551.3	388.4	184.3	120.3	114.2
65°	487.4	319.8	132.5	97.5	91.4
67.5°	423.4	257.4	96.0	74.6	70.1
70°	356.4	196.5	74.6	56.4	51.8
72.5°	292.4	141.6	53.3	41.1	39.6
75°	234.5	91.4	36.6	30.5	30.5
77.5°	176.7	54.8	25.9	22.8	22.8
80°	123.4	32.0	18.3	16.8	16.8
82.5°	74.6	16.8	12.2	10.7	10.7
85°	32.0	9.1	7.6	6.1	6.1
87.5°	6.1	3.0	3.0	3.0	3.0
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	19.69	21.13	20.05	21.44	21.76	12.32	13.77	12.69	14.08	14.40
	3H	21.24	22.53	21.62	22.86	23.22	12.89	14.17	13.27	14.50	14.87
	4H	21.77	22.97	22.17	23.32	23.70	13.01	14.21	13.41	14.56	14.94
	6H	22.10	23.21	22.52	23.58	23.97	13.08	14.18	13.49	14.55	14.95
	8H	22.19	23.24	22.61	23.63	24.03	13.08	14.13	13.51	14.52	14.93
	12H	22.21	23.22	22.64	23.60	24.03	13.07	14.08	13.50	14.46	14.89
4H	2H	19.58	20.78	19.98	21.13	21.51	12.89	14.09	13.29	14.44	14.82
	3H	21.25	22.24	21.66	22.64	23.04	13.56	14.55	13.97	14.95	15.35
	4H	21.80	22.68	22.23	23.10	23.54	13.72	14.60	14.15	15.02	15.46
	6H	22.19	22.95	22.65	23.40	23.86	13.83	14.59	14.29	15.04	15.50
	8H	22.30	23.01	22.76	23.45	23.92	13.84	14.56	14.31	15.00	15.47
	12H	22.34	22.98	22.83	23.46	23.93	13.84	14.48	14.33	14.96	15.43
8H	4H	21.70	22.41	22.17	22.86	23.33	13.99	14.70	14.45	15.15	15.62
	6H	22.09	22.67	22.59	23.17	23.65	14.12	14.71	14.62	15.20	15.68
	8H	22.20	22.72	22.71	23.23	23.72	14.15	14.68	14.67	15.19	15.68
	12H	22.26	22.72	22.77	23.22	23.78	14.17	14.64	14.69	15.13	15.70
12H	4H	21.66	22.30	22.15	22.78	23.25	14.00	14.64	14.49	15.12	15.59
	6H	22.03	22.56	22.55	23.07	23.56	14.13	14.66	14.65	15.17	15.66
	8H	22.16	22.63	22.68	23.12	23.69	14.19	14.66	14.71	15.15	15.72