

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: P1056521

Luminaire Tested: S125R3DR-H1270D830-X4F0-XX-UDD-F-S

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056521
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-H1270D830-X4F0-XX-UDD-F-S
Description: DEFINE 5, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

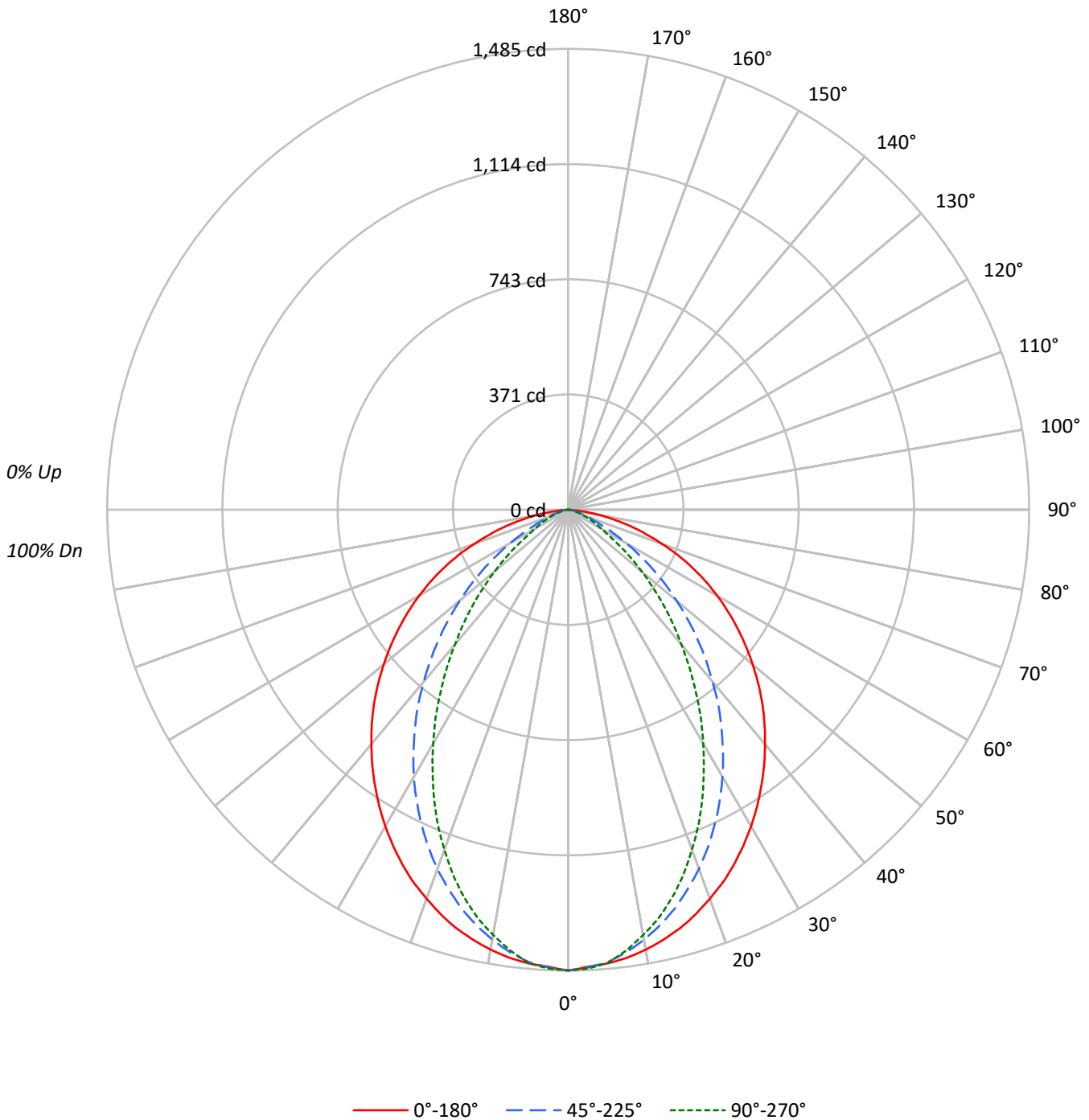
Lumens per Lamp: N/A
Luminaire Lumens: 2684.1 lumens
Efficiency: N/A
Efficacy: 73.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.95 / 1.11
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 36.6
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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	111	107	103	100	108	105	102	99	101	98	96	97	95	93	93	92	90	88
2	102	96	90	85	100	94	89	84	90	86	82	87	84	80	84	81	79	77
3	95	86	79	73	92	84	78	73	81	76	71	79	74	70	76	72	69	67
4	88	77	70	64	86	76	69	63	74	67	62	71	66	62	69	65	61	59
5	81	70	62	56	79	69	61	56	67	60	55	65	59	55	63	58	54	52
6	76	64	56	50	74	63	55	50	61	54	49	60	54	49	58	53	49	47
7	71	58	50	45	69	58	50	45	56	49	44	55	49	44	54	48	44	42
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38
9	62	50	42	37	61	49	42	37	48	41	37	47	41	37	46	41	36	35
10	58	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10499	10499	10499
5°	10412	10383	10402
10°	10335	10098	9989
15°	10215	9732	9470
20°	10034	9269	8772
25°	9846	8720	7980
30°	9619	8116	7105
35°	9363	7429	6183
40°	9098	6675	5228
45°	8840	5884	4330
50°	8529	5005	3403
55°	8202	4067	2475
60°	7834	3033	1769
65°	7360	2001	1380
70°	6651	1393	967
75°	5785	901	751
80°	4535	672	615
85°	2344	560	446

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 8840 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	138.3	5.2
10°-20°	376.1	14.0
20°-30°	520.0	19.4
30°-40°	550.9	20.5
40°-50°	480.9	17.9
50°-60°	342.0	12.7
60°-70°	190.2	7.1
70°-80°	73.1	2.7
80°-90°	12.7	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°	1034.4	38.5
0°-40°	1585.3	59.1
0°-60°	2408.2	89.7
0°-90°	2684.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2684.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1485	1485	1485	1485	1485	
5°	1467	1478	1463	1459	1466	139
15°	1396	1383	1330	1301	1294	393
25°	1262	1220	1118	1049	1023	581
35°	1085	1011	861	756	716	679
45°	884	778	588	470	433	682
55°	666	534	330	228	201	595
65°	440	289	120	88	82	435
75°	212	82	33	28	28	224
85°	29	8	7	6	6	43
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1485.1	1485.1	1485.1	1485.1	1485.1
2.5°	1474.1	1489.2	1476.8	1478.2	1479.6
5°	1467.2	1478.2	1463.1	1458.9	1465.8
7.5°	1456.2	1464.4	1438.3	1428.7	1432.8
10°	1439.7	1442.4	1406.7	1392.9	1391.6
12.5°	1419.1	1414.9	1370.9	1348.9	1347.6
15°	1395.7	1383.3	1329.7	1300.8	1293.9
17.5°	1366.8	1347.6	1281.6	1244.4	1233.4
20°	1333.8	1307.7	1232.1	1183.9	1166.0
22.5°	1300.8	1265.1	1177.0	1116.5	1097.3
25°	1262.3	1219.7	1117.9	1049.2	1023.0
27.5°	1221.1	1170.2	1057.4	977.7	946.0
30°	1178.4	1119.3	994.2	904.8	870.4
32.5°	1133.0	1065.7	928.2	830.5	794.8
35°	1084.9	1010.7	860.8	756.3	716.4
37.5°	1036.8	954.3	794.8	683.4	642.2
40°	985.9	896.5	723.3	609.2	566.5
42.5°	936.4	837.4	655.9	539.0	500.5
45°	884.2	778.3	588.5	470.3	433.1
47.5°	830.5	716.4	521.1	405.6	368.5
50°	775.5	655.9	455.1	342.4	309.4
52.5°	720.5	595.4	393.3	281.9	253.0
55°	665.5	533.5	330.0	228.3	200.8
57.5°	610.5	473.0	270.9	178.8	154.0
60°	554.1	411.1	214.5	132.0	125.1
62.5°	497.8	350.6	166.4	108.6	103.1
65°	440.0	288.8	119.6	88.0	82.5
67.5°	382.3	232.4	86.6	67.4	63.3
70°	321.8	177.4	67.4	50.9	46.8
72.5°	264.0	127.9	48.1	37.1	35.8
75°	211.8	82.5	33.0	27.5	27.5
77.5°	159.5	49.5	23.4	20.6	20.6
80°	111.4	28.9	16.5	15.1	15.1
82.5°	67.4	15.1	11.0	9.6	9.6
85°	28.9	8.3	6.9	5.5	5.5
87.5°	5.5	2.8	2.8	2.8	2.8
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	19.33	20.78	19.70	21.09	21.40	11.97	13.41	12.33	13.73	14.04
	3H	20.89	22.18	21.27	22.51	22.87	12.53	13.82	12.91	14.15	14.51
	4H	21.41	22.61	21.81	22.96	23.34	12.66	13.86	13.06	14.21	14.59
	6H	21.75	22.86	22.16	23.22	23.62	12.72	13.83	13.14	14.20	14.59
	8H	21.83	22.88	22.26	23.27	23.68	12.73	13.78	13.16	14.17	14.57
	12H	21.86	22.86	22.29	23.24	23.67	12.72	13.72	13.15	14.11	14.54
4H	2H	19.23	20.43	19.63	20.78	21.16	12.53	13.74	12.93	14.09	14.47
	3H	20.89	21.88	21.31	22.28	22.68	13.21	14.19	13.62	14.60	15.00
	4H	21.44	22.33	21.88	22.74	23.18	13.36	14.25	13.80	14.67	15.11
	6H	21.84	22.60	22.30	23.04	23.51	13.48	14.24	13.94	14.68	15.15
	8H	21.94	22.65	22.41	23.10	23.57	13.49	14.20	13.95	14.65	15.11
	12H	21.99	22.62	22.47	23.10	23.57	13.49	14.12	13.97	14.60	15.07
8H	4H	21.35	22.06	21.81	22.50	22.97	13.63	14.35	14.10	14.79	15.26
	6H	21.73	22.32	22.23	22.81	23.29	13.77	14.35	14.27	14.85	15.32
	8H	21.84	22.37	22.36	22.88	23.37	13.79	14.32	14.31	14.83	15.32
	12H	21.90	22.37	22.42	22.86	23.43	13.82	14.28	14.33	14.77	15.34
12H	4H	21.31	21.94	21.79	22.42	22.90	13.65	14.28	14.13	14.76	15.24
	6H	21.68	22.21	22.20	22.72	23.21	13.78	14.30	14.30	14.82	15.31
	8H	21.81	22.27	22.32	22.77	23.33	13.84	14.30	14.35	14.79	15.36