

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: P1056386

Luminaire Tested: S125R3DR-S1270D830-X4F0-XX-UDD-F-S

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056386
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-S1270D830-X4F0-XX-UDD-F-S
Description: DEFINE 5, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

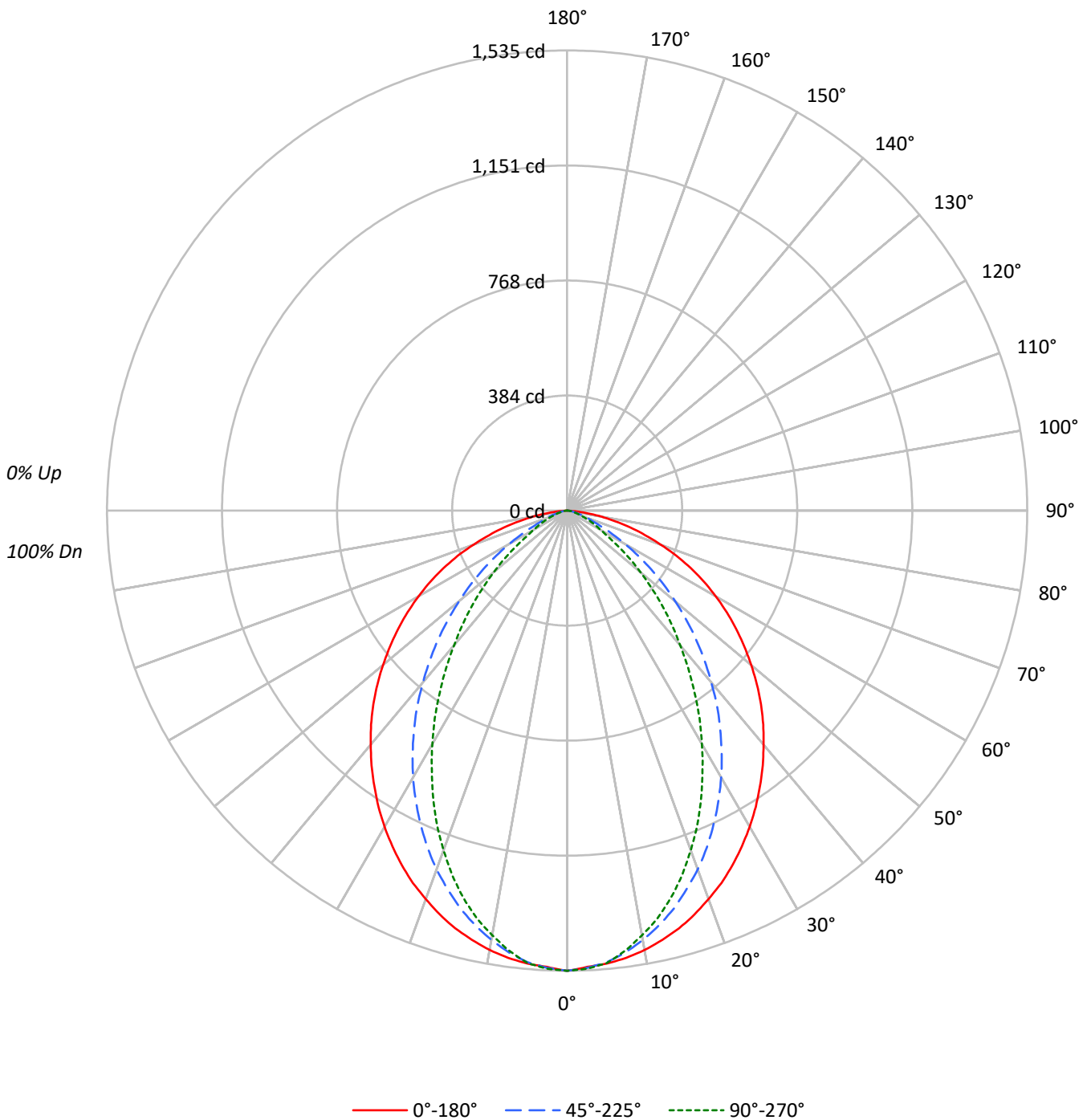
Lumens per Lamp: N/A
Luminaire Lumens: 2774.8 lumens
Efficiency: N/A
Efficacy: 66.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.95 / 1.11
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')
CIE Type: Direct

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	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°	10853	10853	10853
5°	10763	10733	10753
10°	10684	10439	10327
15°	10559	10060	9790
20°	10374	9582	9068
25°	10178	9015	8249
30°	9944	8389	7345
35°	9679	7680	6391
40°	9406	6900	5405
45°	9138	6083	4477
50°	8817	5175	3517
55°	8480	4205	2557
60°	8100	3136	1830
65°	7609	2069	1427
70°	6875	1441	998
75°	5979	931	776
80°	4686	696	635
85°	2425	576	462

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 9138 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	143.0	5.2
10°-20°	388.8	14.0
20°-30°	537.6	19.4
30°-40°	569.5	20.5
40°-50°	497.1	17.9
50°-60°	353.6	12.7
60°-70°	196.6	7.1
70°-80°	75.6	2.7
80°-90°	13.1	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°	1069.3	38.5
0°-40°	1638.8	59.1
0°-60°	2489.5	89.7
0°-90°	2774.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2774.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1535	1535	1535	1535	1535	
5°	1517	1528	1512	1508	1515	144
15°	1443	1430	1375	1345	1338	406
25°	1305	1261	1156	1085	1058	601
35°	1122	1045	890	782	741	702
45°	914	805	608	486	448	705
55°	688	552	341	236	208	615
65°	455	298	124	91	85	449
75°	219	85	34	28	28	232
85°	30	8	7	6	6	44
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1535.2	1535.2	1535.2	1535.2	1535.2
2.5°	1523.8	1539.5	1526.7	1528.1	1529.5
5°	1516.7	1528.1	1512.5	1508.2	1515.3
7.5°	1505.4	1513.9	1486.9	1476.9	1481.2
10°	1488.3	1491.2	1454.2	1440.0	1438.6
12.5°	1467.0	1462.7	1417.2	1394.5	1393.1
15°	1442.8	1430.0	1374.6	1344.7	1337.6
17.5°	1413.0	1393.1	1324.8	1286.5	1275.1
20°	1378.9	1351.8	1273.7	1223.9	1205.4
22.5°	1344.7	1307.8	1216.8	1154.3	1134.4
25°	1304.9	1260.9	1155.7	1084.6	1057.6
27.5°	1262.3	1209.7	1093.1	1010.7	978.0
30°	1218.2	1157.1	1027.7	935.3	899.8
32.5°	1171.3	1101.7	959.5	858.6	821.6
35°	1121.6	1044.8	889.9	781.8	740.6
37.5°	1071.8	986.5	821.6	706.5	663.8
40°	1019.2	926.8	747.7	629.7	585.7
42.5°	968.0	865.7	678.1	557.2	517.4
45°	914.0	804.6	608.4	486.2	447.8
47.5°	858.6	740.6	538.7	419.3	381.0
50°	801.7	678.1	470.5	354.0	319.8
52.5°	744.9	615.5	406.5	291.4	261.6
55°	688.0	551.5	341.2	236.0	207.5
57.5°	631.1	489.0	280.0	184.8	159.2
60°	572.9	425.0	221.8	136.5	129.4
62.5°	514.6	362.5	172.0	112.3	106.6
65°	454.9	298.5	123.7	91.0	85.3
67.5°	395.2	240.2	89.6	69.7	65.4
70°	332.6	183.4	69.7	52.6	48.3
72.5°	272.9	132.2	49.8	38.4	37.0
75°	218.9	85.3	34.1	28.4	28.4
77.5°	164.9	51.2	24.2	21.3	21.3
80°	115.1	29.9	17.1	15.6	15.6
82.5°	69.7	15.6	11.4	10.0	10.0
85°	29.9	8.5	7.1	5.7	5.7
87.5°	5.7	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	19.45	20.89	19.81	21.20	21.52	12.08	13.53	12.45	13.84	14.16
	3H	21.00	22.29	21.38	22.62	22.98	12.65	13.93	13.03	14.26	14.63
	4H	21.53	22.73	21.93	23.08	23.46	12.77	13.97	13.17	14.32	14.70
	6H	21.86	22.97	22.28	23.34	23.73	12.84	13.94	13.25	14.31	14.70
	8H	21.95	23.00	22.37	23.39	23.79	12.84	13.89	13.27	14.28	14.69
	12H	21.97	22.98	22.40	23.36	23.79	12.83	13.84	13.26	14.22	14.65
4H	2H	19.34	20.54	19.74	20.89	21.27	12.65	13.85	13.05	14.20	14.58
	3H	21.01	22.00	21.42	22.40	22.80	13.32	14.31	13.73	14.71	15.11
	4H	21.56	22.44	21.99	22.86	23.30	13.48	14.36	13.91	14.78	15.22
	6H	21.95	22.72	22.41	23.16	23.62	13.59	14.35	14.05	14.80	15.26
	8H	22.06	22.77	22.52	23.21	23.68	13.60	14.32	14.07	14.76	15.23
	12H	22.10	22.74	22.59	23.22	23.69	13.60	14.24	14.09	14.72	15.19
8H	4H	21.46	22.17	21.93	22.62	23.09	13.75	14.46	14.21	14.91	15.38
	6H	21.85	22.43	22.35	22.93	23.41	13.88	14.47	14.38	14.96	15.44
	8H	21.96	22.48	22.47	22.99	23.48	13.91	14.44	14.43	14.95	15.44
	12H	22.02	22.48	22.53	22.98	23.54	13.93	14.40	14.44	14.89	15.46
12H	4H	21.42	22.06	21.91	22.54	23.01	13.76	14.40	14.25	14.88	15.35
	6H	21.80	22.32	22.31	22.83	23.32	13.89	14.42	14.41	14.93	15.42
	8H	21.92	22.39	22.44	22.88	23.45	13.95	14.42	14.47	14.91	15.48