

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: P1056385

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

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056385
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-11)
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-B
Description: DEFINE 5, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

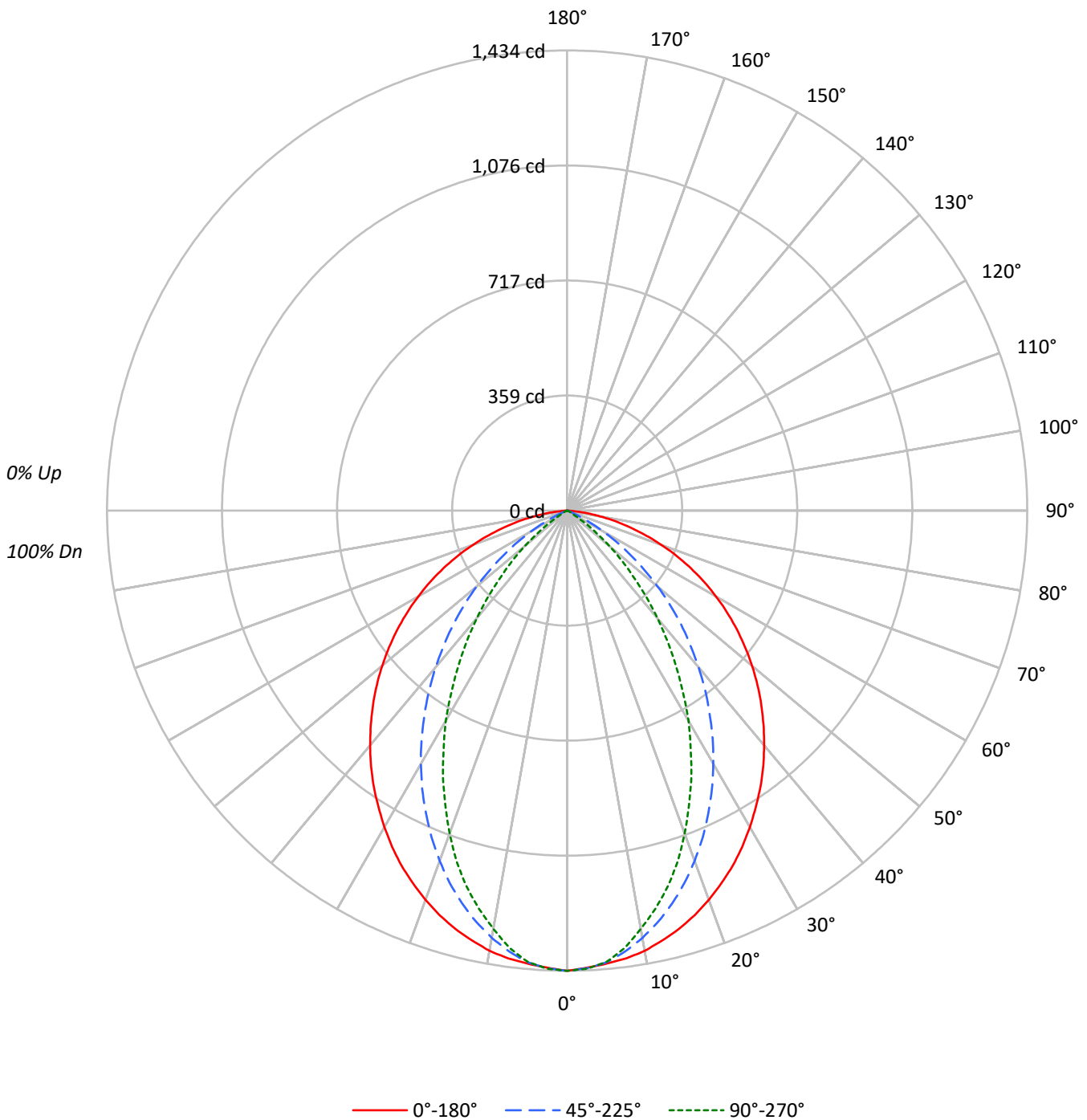
Lumens per Lamp: N/A
Luminaire Lumens: 2324.8 lumens
Efficiency: N/A
Efficacy: 55.5 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.89 / 1.07
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 41.9
Input Voltage (V): 120
Input Current (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	111	108	104	101	109	106	103	100	101	99	97	98	96	94	94	93	91	89
2	103	97	91	87	101	95	90	86	92	88	84	89	85	82	86	83	80	78
3	96	87	81	75	94	86	80	75	83	78	74	80	76	72	78	74	71	69
4	89	79	72	66	87	78	71	66	76	70	65	73	68	64	71	67	63	61
5	83	72	64	59	81	71	64	58	69	63	58	67	62	57	65	61	57	55
6	77	66	58	53	76	65	58	52	63	57	52	62	56	52	60	55	51	49
7	72	61	53	47	71	60	52	47	58	52	47	57	51	47	56	50	46	45
8	68	56	48	43	66	55	48	43	54	47	43	53	47	43	52	46	42	41
9	64	52	44	39	62	51	44	39	50	44	39	49	43	39	48	43	39	37
10	60	48	41	36	59	48	41	36	47	40	36	46	40	36	45	40	36	34

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10140	10140	10140
5°	10057	10027	10017
10°	10000	9704	9500
15°	9873	9270	8874
20°	9710	8737	8053
25°	9525	8116	7140
30°	9294	7438	6173
35°	9066	6686	5103
40°	8815	5877	4040
45°	8555	5017	2927
50°	8270	4049	1892
55°	7955	2960	841
60°	7577	1830	242
65°	7109	666	142
70°	6434	236	58
75°	5591	76	38
80°	4283	57	0
85°	1963	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 8555 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	133.2	5.7
10°-20°	357.7	15.4
20°-30°	483.9	20.8
30°-40°	497.1	21.4
40°-50°	411.9	17.7
50°-60°	264.4	11.4
60°-70°	127.7	5.5
70°-80°	43.2	1.9
80°-90°	5.5	0.2
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°	974.9	41.9
0°-40°	1472.0	63.3
0°-60°	2148.3	92.4
0°-90°	2324.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2324.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1434	1434	1434	1434	1434	
5°	1417	1429	1413	1404	1412	135
15°	1349	1332	1267	1222	1212	380
25°	1221	1161	1040	947	915	562
35°	1050	950	775	640	591	657
45°	856	715	502	347	293	660
55°	645	473	240	105	68	577
65°	425	234	40	11	8	420
75°	205	44	3	1	1	217
85°	24	0	0	0	0	38
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1434.3	1434.3	1434.3	1434.3	1434.3
2.5°	1425.8	1437.1	1427.2	1425.8	1428.6
5°	1417.2	1428.6	1413.0	1404.4	1411.6
7.5°	1407.3	1413.0	1386.0	1371.7	1374.6
10°	1393.1	1391.6	1351.8	1327.7	1323.4
12.5°	1371.7	1364.6	1312.0	1277.9	1270.8
15°	1349.0	1331.9	1266.6	1222.5	1212.5
17.5°	1322.0	1295.0	1216.8	1159.9	1145.7
20°	1290.7	1253.8	1161.4	1091.7	1070.4
22.5°	1256.6	1209.7	1103.1	1020.6	992.2
25°	1221.1	1161.4	1040.5	946.7	915.4
27.5°	1181.3	1111.6	978.0	871.4	833.0
30°	1138.6	1059.0	911.2	794.6	756.2
32.5°	1094.6	1006.4	844.4	717.9	670.9
35°	1050.5	949.6	774.7	639.7	591.3
37.5°	1003.6	892.7	706.5	565.8	513.2
40°	955.2	834.4	636.8	489.0	437.8
42.5°	905.5	774.7	567.2	416.5	363.9
45°	855.7	715.0	501.8	346.8	292.8
47.5°	804.6	653.9	433.6	278.6	231.7
50°	752.0	594.2	368.2	217.5	172.0
52.5°	699.4	533.1	301.4	157.8	116.6
55°	645.4	473.4	240.2	105.2	68.2
57.5°	591.3	412.2	183.4	58.3	25.6
60°	535.9	354.0	129.4	19.9	17.1
62.5°	481.9	291.4	81.0	15.6	12.8
65°	425.0	234.5	39.8	11.4	8.5
67.5°	369.6	180.5	17.1	7.1	4.3
70°	311.3	130.8	11.4	4.3	2.8
72.5°	257.3	83.9	7.1	2.8	1.4
75°	204.7	44.1	2.8	1.4	1.4
77.5°	153.5	18.5	1.4	1.4	1.4
80°	105.2	8.5	1.4	1.4	0.0
82.5°	62.5	2.8	1.4	1.4	0.0
85°	24.2	0.0	0.0	0.0	0.0
87.5°	1.4	0.0	0.0	0.0	0.0
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	19.12	20.50	19.48	20.81	21.13	3.98	5.37	4.35	5.68	6.00
	3H	20.67	21.89	21.05	22.22	22.59	3.91	5.13	4.28	5.46	5.83
	4H	21.19	22.33	21.59	22.68	23.07	3.84	4.98	4.24	5.33	5.72
	6H	21.53	22.58	21.94	22.95	23.34	3.77	4.82	4.18	5.19	5.58
	8H	21.61	22.61	22.04	23.00	23.40	3.73	4.73	4.16	5.12	5.52
	12H	21.63	22.58	22.06	22.96	23.39	3.69	4.64	4.12	5.02	5.45
4H	2H	18.92	20.06	19.32	20.41	20.80	4.85	5.99	5.25	6.34	6.72
	3H	20.53	21.47	20.95	21.87	22.27	4.80	5.73	5.21	6.13	6.54
	4H	21.06	21.89	21.49	22.31	22.75	4.72	5.55	5.15	5.97	6.41
	6H	21.43	22.15	21.89	22.60	23.06	4.65	5.37	5.11	5.82	6.28
	8H	21.53	22.20	22.00	22.65	23.12	4.60	5.27	5.07	5.72	6.19
	12H	21.56	22.16	22.05	22.64	23.11	4.56	5.15	5.04	5.63	6.11
8H	4H	20.93	21.60	21.40	22.05	22.52	5.74	6.41	6.21	6.86	7.33
	6H	21.28	21.83	21.79	22.33	22.81	5.66	6.20	6.16	6.70	7.18
	8H	21.38	21.87	21.90	22.39	22.88	5.60	6.10	6.12	6.61	7.10
	12H	21.42	21.86	21.94	22.35	22.92	5.56	6.00	6.08	6.49	7.06
12H	4H	20.89	21.48	21.37	21.96	22.43	5.82	6.41	6.30	6.89	7.37
	6H	21.22	21.72	21.74	22.23	22.72	5.72	6.21	6.24	6.73	7.22
	8H	21.34	21.77	21.85	22.27	22.84	5.69	6.12	6.20	6.62	7.19