

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: P1056495

Luminaire Tested: S125R3DR-H1090D830-X4F0-XX-UDD-F-W

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056495
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-10)
Test Lab: INNOVATION CENTER
Issue Date: 7/25/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S125R3DR-H1090D830-X4F0-XX-UDD-F-W
Description: DEFINE 5, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

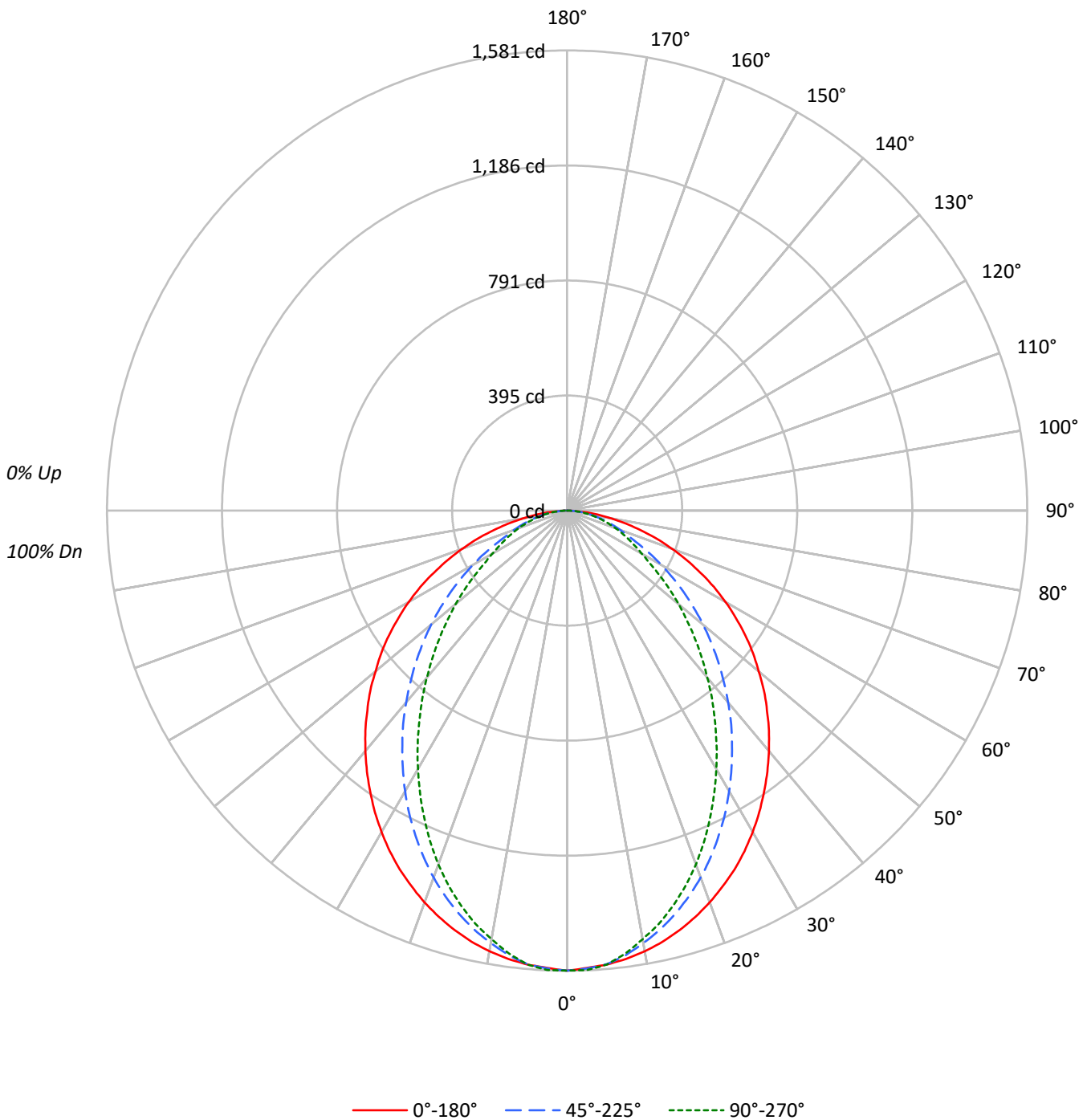
Lumens per Lamp: N/A
Luminaire Lumens: 3350.5 lumens
Efficiency: N/A
Efficacy: 108.4 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.01 / 1.17
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 30.9
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	110	105	101	98	107	103	100	96	99	96	93	95	93	90	91	90	88					86				
2	101	93	87	81	98	91	85	80	88	83	79	84	80	77	81	78	75					73				
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65					63				
4	85	74	66	59	83	73	65	59	70	63	58	68	62	57	66	61	57					55				
5	79	67	58	52	77	66	58	52	63	56	51	62	55	51	60	54	50					48				
6	73	60	52	46	71	59	51	46	58	51	45	56	50	45	55	49	45					43				
7	68	55	47	41	66	54	46	41	53	46	41	51	45	40	50	44	40					38				
8	63	51	42	37	62	50	42	37	49	42	37	47	41	36	46	40	36					34				
9	59	47	39	33	58	46	39	33	45	38	33	44	38	33	43	37	33					31				
10	56	43	36	31	55	43	35	30	42	35	30	41	35	30	40	34	30					28				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11175	11175	11175
5°	11109	11102	11109
10°	11035	10832	10731
15°	10924	10502	10286
20°	10777	10095	9732
25°	10614	9613	9072
30°	10406	9089	8369
35°	10178	8523	7639
40°	9950	7941	6919
45°	9709	7331	6201
50°	9451	6705	5489
55°	9213	6021	4773
60°	8888	5292	4194
65°	8447	4490	3899
70°	7931	4014	3650
75°	7170	3698	3439
80°	6229	3355	3212
85°	4867	2961	2961

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 9709 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	147.9	4.4
10°-20°	406.1	12.1
20°-30°	573.7	17.1
30°-40°	631.6	18.8
40°-50°	589.1	17.6
50°-60°	470.3	14.0
60°-70°	316.5	9.4
70°-80°	168.6	5.0
80°-90°	46.9	1.4
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°	1127.7	33.7
0°-40°	1759.3	52.5
0°-60°	2818.7	84.1
0°-90°	3350.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3350.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1581	1581	1581	1581	1581	
5°	1566	1578	1564	1560	1566	149
15°	1493	1484	1435	1410	1405	421
25°	1361	1320	1232	1178	1163	626
35°	1179	1110	988	910	885	738
45°	971	879	733	644	620	750
55°	748	634	488	411	387	667
65°	505	394	268	238	233	501
75°	262	174	135	127	126	280
85°	60	41	36	38	36	72
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1580.8	1580.8	1580.8	1580.8	1580.8
2.5°	1572.6	1585.5	1574.9	1577.3	1579.7
5°	1565.5	1578.5	1564.4	1559.6	1565.5
7.5°	1553.8	1564.4	1540.8	1530.2	1534.9
10°	1537.3	1544.3	1509.0	1494.9	1494.9
12.5°	1517.3	1517.3	1474.9	1454.9	1454.9
15°	1492.6	1484.3	1434.9	1410.2	1405.4
17.5°	1464.3	1449.0	1390.1	1358.4	1352.5
20°	1432.5	1407.8	1341.9	1300.7	1293.6
22.5°	1397.2	1365.4	1288.9	1238.3	1230.1
25°	1360.7	1319.5	1232.4	1178.3	1163.0
27.5°	1319.5	1270.1	1174.7	1113.5	1094.7
30°	1274.8	1218.3	1113.5	1045.3	1025.2
32.5°	1228.9	1165.3	1051.1	978.2	955.8
35°	1179.4	1110.0	987.6	909.9	885.2
37.5°	1130.0	1054.7	925.2	844.0	818.1
40°	1078.2	995.8	860.5	776.9	749.8
42.5°	1026.4	938.1	796.9	712.1	683.9
45°	971.1	879.3	733.3	643.9	620.3
47.5°	918.1	819.3	670.9	583.8	557.9
50°	859.3	756.9	609.7	522.6	499.1
52.5°	805.1	695.7	548.5	467.3	442.6
55°	747.5	634.5	488.5	410.8	387.3
57.5°	687.4	573.2	430.8	357.8	335.5
60°	628.6	512.0	374.3	307.2	296.6
62.5°	568.5	454.4	321.3	269.6	262.5
65°	505.0	394.3	268.4	237.8	233.1
67.5°	444.9	336.6	226.0	208.3	203.6
70°	383.7	279.0	194.2	178.9	176.6
72.5°	323.7	223.6	163.6	153.0	150.7
75°	262.5	174.2	135.4	127.1	125.9
77.5°	206.0	130.7	107.1	103.6	101.2
80°	153.0	97.7	82.4	80.0	78.9
82.5°	104.8	67.1	58.9	58.9	56.5
85°	60.0	41.2	36.5	37.7	36.5
87.5°	22.4	17.7	16.5	17.7	17.7
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	19.67	21.21	20.04	21.53	21.84	16.06	17.60	16.42	17.91	18.22
	3H	21.46	22.84	21.84	23.17	23.53	17.53	18.92	17.91	19.24	19.60
	4H	22.11	23.41	22.51	23.76	24.14	18.12	19.42	18.52	19.77	20.15
	6H	22.59	23.79	23.00	24.16	24.55	18.58	19.79	19.00	20.15	20.54
	8H	22.74	23.89	23.17	24.28	24.68	18.75	19.89	19.17	20.28	20.68
	12H	22.84	23.93	23.27	24.32	24.75	18.86	19.96	19.29	20.34	20.77
4H	2H	19.81	21.11	20.21	21.46	21.83	16.73	18.03	17.13	18.38	18.76
	3H	21.78	22.86	22.19	23.26	23.66	18.41	19.49	18.82	19.89	20.29
	4H	22.52	23.50	22.96	23.91	24.35	19.11	20.09	19.55	20.50	20.94
	6H	23.12	23.97	23.58	24.41	24.87	19.70	20.55	20.16	20.99	21.45
	8H	23.33	24.12	23.79	24.56	25.03	19.91	20.70	20.37	21.14	21.61
	12H	23.47	24.18	23.95	24.66	25.13	20.07	20.78	20.55	21.26	21.73
8H	4H	22.59	23.38	23.05	23.82	24.29	19.48	20.27	19.94	20.71	21.18
	6H	23.25	23.90	23.74	24.39	24.87	20.18	20.84	20.68	21.33	21.80
	8H	23.50	24.09	24.01	24.60	25.09	20.46	21.05	20.98	21.56	22.05
	12H	23.71	24.23	24.22	24.72	25.29	20.71	21.23	21.21	21.72	22.28
12H	4H	22.58	23.29	23.06	23.77	24.24	19.53	20.23	20.01	20.71	21.18
	6H	23.24	23.83	23.75	24.34	24.83	20.25	20.84	20.76	21.35	21.84
	8H	23.54	24.06	24.04	24.55	25.11	20.59	21.12	21.10	21.61	22.17