

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: P1056387

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

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056387
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-S1270D830-X4F0-XX-UDD-F-W
Description: DEFINE 5, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

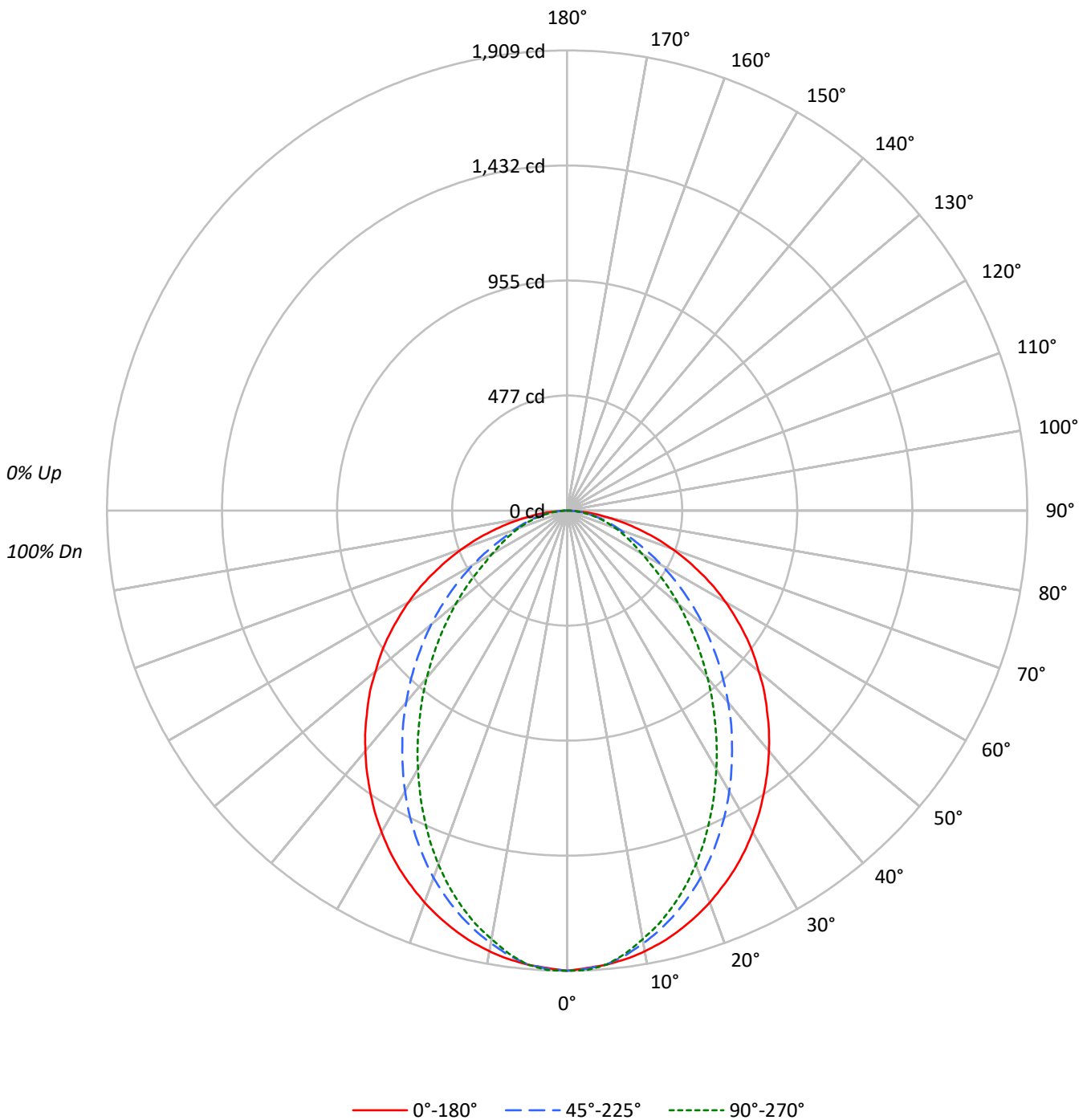
Lumens per Lamp: N/A
Luminaire Lumens: 4046.2 lumens
Efficiency: N/A
Efficacy: 96.6 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.01 / 1.17
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')
CIE Type: Direct

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	13496	13496	13496
5°	13416	13406	13416
10°	13327	13082	12959
15°	13192	12682	12422
20°	13015	12191	11752
25°	12818	11609	10955
30°	12567	10977	10107
35°	12292	10292	9226
40°	12016	9589	8356
45°	11724	8854	7489
50°	11413	8098	6628
55°	11126	7271	5764
60°	10733	6391	5064
65°	10200	5421	4709
70°	9578	4847	4407
75°	8658	4466	4154
80°	7523	4051	3876
85°	5881	3577	3577

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 11724 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	178.6	4.4
10°-20°	490.5	12.1
20°-30°	692.8	17.1
30°-40°	762.7	18.8
40°-50°	711.4	17.6
50°-60°	567.9	14.0
60°-70°	382.2	9.4
70°-80°	203.6	5.0
80°-90°	56.6	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°	1361.9	33.7
0°-40°	2124.6	52.5
0°-60°	3403.9	84.1
0°-90°	4046.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4046.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1909	1909	1909	1909	1909	
5°	1891	1906	1889	1884	1891	179
15°	1802	1792	1733	1703	1697	508
25°	1643	1594	1488	1423	1404	756
35°	1424	1340	1193	1099	1069	891
45°	1173	1062	886	778	749	905
55°	903	766	590	496	468	806
65°	610	476	324	287	282	605
75°	317	210	164	154	152	338
85°	72	50	44	46	44	87
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1909.1	1909.1	1909.1	1909.1	1909.1
2.5°	1899.1	1914.8	1902.0	1904.8	1907.7
5°	1890.6	1906.2	1889.2	1883.5	1890.6
7.5°	1876.4	1889.2	1860.7	1847.9	1853.6
10°	1856.5	1865.0	1822.4	1805.3	1805.3
12.5°	1832.3	1832.3	1781.1	1757.0	1757.0
15°	1802.5	1792.5	1732.8	1703.0	1697.3
17.5°	1768.3	1749.9	1678.8	1640.4	1633.3
20°	1730.0	1700.1	1620.5	1570.8	1562.2
22.5°	1687.3	1648.9	1556.5	1495.4	1485.5
25°	1643.3	1593.5	1488.3	1422.9	1404.4
27.5°	1593.5	1533.8	1418.7	1344.7	1322.0
30°	1539.5	1471.3	1344.7	1262.3	1238.1
32.5°	1484.0	1407.3	1269.4	1181.3	1154.3
35°	1424.3	1340.5	1192.6	1098.8	1069.0
37.5°	1364.6	1273.7	1117.3	1019.2	987.9
40°	1302.1	1202.6	1039.1	938.2	905.5
42.5°	1239.5	1132.9	962.4	860.0	825.9
45°	1172.7	1061.9	885.6	777.6	749.1
47.5°	1108.8	989.4	810.3	705.1	673.8
50°	1037.7	914.0	736.3	631.1	602.7
52.5°	972.3	840.1	662.4	564.3	534.5
55°	902.7	766.2	589.9	496.1	467.7
57.5°	830.2	692.3	520.3	432.1	405.1
60°	759.1	618.4	452.0	371.0	358.2
62.5°	686.6	548.7	388.1	325.5	317.0
65°	609.8	476.2	324.1	287.1	281.5
67.5°	537.3	406.5	272.9	251.6	245.9
70°	463.4	336.9	234.5	216.1	213.2
72.5°	390.9	270.1	197.6	184.8	182.0
75°	317.0	210.4	163.5	153.5	152.1
77.5°	248.8	157.8	129.4	125.1	122.2
80°	184.8	118.0	99.5	96.7	95.2
82.5°	126.5	81.0	71.1	71.1	68.2
85°	72.5	49.8	44.1	45.5	44.1
87.5°	27.0	21.3	19.9	21.3	21.3
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	20.33	21.87	20.70	22.18	22.50	16.71	18.25	17.08	18.56	18.88
	3H	22.12	23.50	22.49	23.83	24.19	18.19	19.57	18.57	19.90	20.26
	4H	22.77	24.07	23.17	24.42	24.79	18.78	20.08	19.18	20.43	20.80
	6H	23.25	24.45	23.66	24.81	25.20	19.24	20.44	19.65	20.81	21.20
	8H	23.40	24.54	23.83	24.93	25.33	19.40	20.54	19.83	20.93	21.34
	12H	23.49	24.59	23.92	24.97	25.40	19.52	20.61	19.95	20.99	21.42
4H	2H	20.46	21.76	20.86	22.11	22.49	17.39	18.69	17.79	19.04	19.41
	3H	22.43	23.52	22.85	23.91	24.32	19.07	20.15	19.48	20.55	20.95
	4H	23.18	24.15	23.61	24.57	25.01	19.77	20.74	20.20	21.16	21.60
	6H	23.77	24.62	24.23	25.06	25.52	20.35	21.20	20.81	21.64	22.10
	8H	23.98	24.77	24.44	25.22	25.68	20.56	21.36	21.03	21.80	22.27
	12H	24.13	24.84	24.61	25.32	25.79	20.72	21.43	21.21	21.91	22.38
8H	4H	23.24	24.04	23.71	24.48	24.95	20.13	20.93	20.60	21.37	21.84
	6H	23.90	24.56	24.40	25.05	25.53	20.84	21.49	21.33	21.98	22.46
	8H	24.16	24.75	24.67	25.25	25.74	21.12	21.71	21.63	22.22	22.71
	12H	24.37	24.89	24.87	25.38	25.94	21.36	21.88	21.87	22.37	22.94
12H	4H	23.24	23.95	23.72	24.42	24.89	20.18	20.89	20.66	21.37	21.84
	6H	23.90	24.49	24.41	25.00	25.48	20.91	21.50	21.42	22.01	22.49
	8H	24.19	24.71	24.70	25.20	25.77	21.25	21.77	21.76	22.26	22.83