

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: P1059039

Luminaire Tested: S123RDRP-S1000D850-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059039
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-64)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDRP-S1000D850-X4F0-XX-UDD-WVL-W
Description: DEFINE 3 WHITE REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

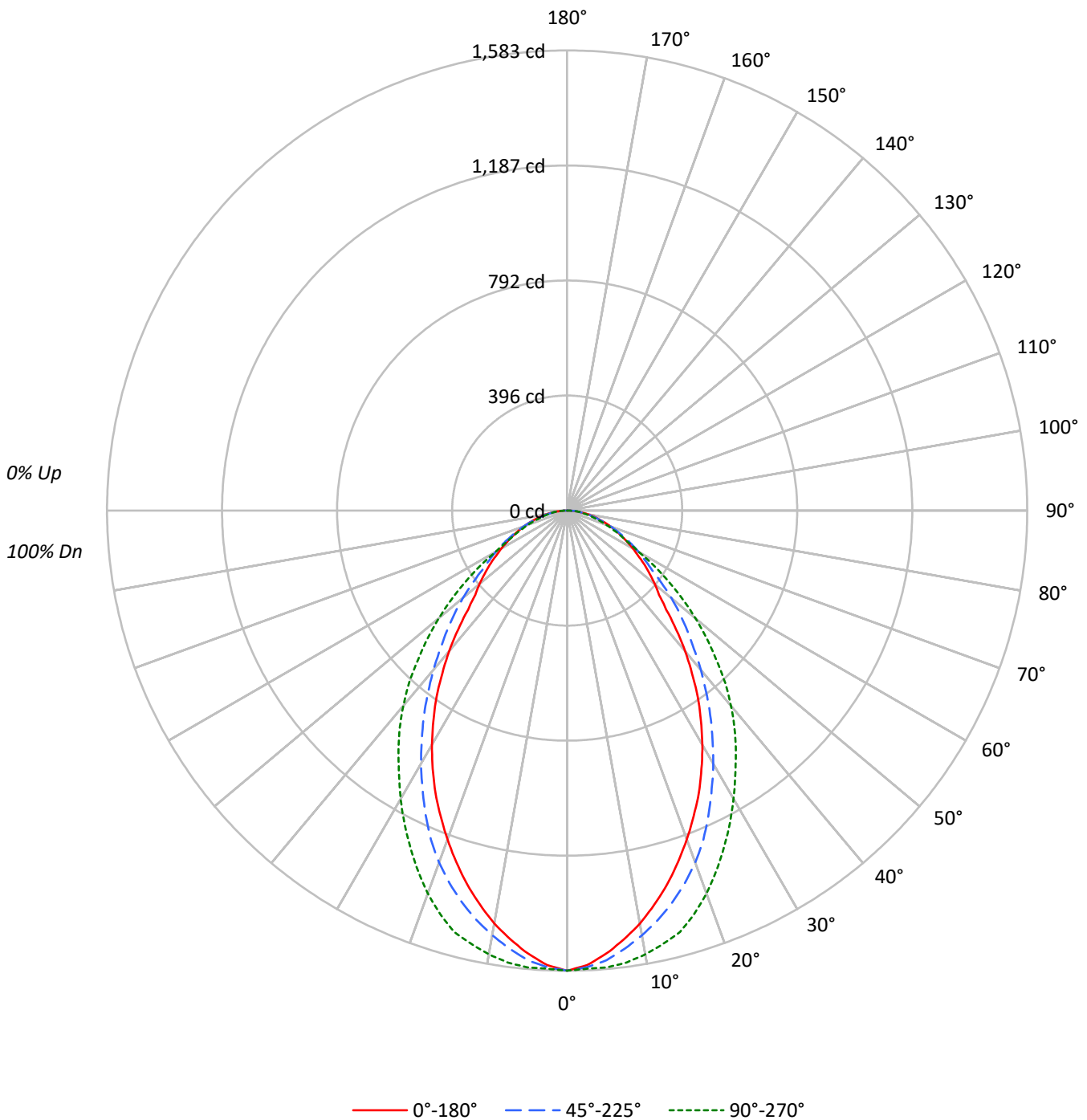
Lumens per Lamp: N/A
Luminaire Lumens: 2781.1 lumens
Efficiency: N/A
Efficacy: 79.5 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 1.1 / 1.09
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 35
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	106	102	99	108	104	101	97	100	97	94	96	94	92	92	91	89					87				
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77					75				
3	94	85	77	72	92	83	76	71	80	75	70	78	73	69	75	71	68					66				
4	87	76	69	63	85	75	68	62	73	66	61	70	65	61	68	64	60					58				
5	81	69	61	55	79	68	61	55	66	59	54	64	58	54	62	57	53					51				
6	75	63	55	49	73	62	55	49	61	54	49	59	53	48	57	52	48					46				
7	70	58	50	44	69	57	50	44	56	49	44	54	48	44	53	48	43					41				
8	66	53	46	40	64	53	45	40	51	45	40	50	44	40	49	44	39					38				
9	62	49	42	37	60	49	42	37	48	41	36	47	41	36	46	40	36					34				
10	58	46	39	34	57	45	38	34	45	38	34	44	38	33	43	37	33					32				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	18585	18585	18585
5°	18045	18302	18591
10°	17199	17685	18482
15°	16177	16972	18246
20°	15045	16101	17513
25°	13888	14930	16553
30°	12614	13630	15532
35°	11227	12301	14507
40°	9688	10962	13445
45°	8008	9703	12056
50°	7190	8559	10524
55°	6664	7305	8727
60°	6141	6653	6686
65°	5715	6018	5601
70°	5376	5473	4910
75°	5068	4882	4324
80°	4788	4422	4051
85°	4594	4958	4594

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 12056 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	146.6	5.3
10°-20°	394.9	14.2
20°-30°	534.3	19.2
30°-40°	549.0	19.7
40°-50°	461.1	16.6
50°-60°	330.6	11.9
60°-70°	210.5	7.6
70°-80°	115.6	4.2
80°-90°	38.6	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°	1075.7	38.7
0°-40°	1624.8	58.4
0°-60°	2416.4	86.9
0°-90°	2781.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2781.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1583	1583	1583	1583	1583	
5°	1531	1558	1553	1564	1577	143
15°	1331	1368	1396	1456	1501	373
25°	1072	1113	1152	1215	1278	491
35°	783	825	858	934	1012	487
45°	482	524	584	669	726	381
55°	326	332	357	404	426	291
65°	206	218	217	204	202	205
75°	112	123	108	99	95	119
85°	34	35	37	38	34	37
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1582.7	1582.7	1582.7	1582.7	1582.7
2.5°	1565.0	1586.8	1571.8	1573.1	1577.2
5°	1530.9	1558.2	1552.7	1563.6	1577.2
7.5°	1488.7	1518.7	1520.0	1545.9	1567.7
10°	1442.4	1473.7	1483.2	1522.7	1550.0
12.5°	1387.9	1422.0	1442.4	1491.4	1526.8
15°	1330.7	1367.5	1396.1	1456.0	1500.9
17.5°	1268.0	1307.5	1344.3	1408.3	1454.6
20°	1204.0	1246.3	1288.5	1348.4	1401.5
22.5°	1137.3	1180.9	1224.5	1283.0	1341.6
25°	1071.9	1112.8	1152.3	1214.9	1277.6
27.5°	1001.1	1043.3	1077.4	1146.8	1212.2
30°	930.3	972.5	1005.2	1077.4	1145.5
32.5°	856.7	900.3	930.3	1005.2	1076.0
35°	783.2	825.4	858.1	934.3	1012.0
37.5°	705.5	751.8	784.5	870.3	946.6
40°	632.0	675.6	715.1	805.0	877.1
42.5°	555.7	600.7	645.6	738.2	805.0
45°	482.2	524.4	584.3	668.8	726.0
47.5°	429.0	456.3	525.7	596.6	651.0
50°	393.6	404.5	468.5	531.2	576.1
52.5°	358.2	366.4	410.0	467.2	501.2
55°	325.5	332.3	356.8	404.5	426.3
57.5°	290.1	296.9	317.4	344.6	356.8
60°	261.5	267.0	283.3	287.4	284.7
62.5°	232.9	241.1	249.3	239.7	235.6
65°	205.7	217.9	216.6	204.3	201.6
67.5°	181.1	193.4	186.6	174.3	170.3
70°	156.6	168.9	159.4	147.1	143.0
72.5°	133.5	147.1	132.1	121.2	118.5
75°	111.7	122.6	107.6	99.4	95.3
77.5°	91.3	99.4	85.8	79.0	76.3
80°	70.8	76.3	65.4	61.3	59.9
82.5°	51.8	54.5	47.7	50.4	49.0
85°	34.1	35.4	36.8	38.1	34.1
87.5°	16.3	23.2	23.2	21.8	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	17.34	18.80	17.70	19.11	19.43	18.41	19.87	18.77	20.18	20.50
	3H	19.03	20.35	19.41	20.67	21.04	19.49	20.80	19.87	21.13	21.49
	4H	19.69	20.92	20.09	21.27	21.65	19.89	21.12	20.29	21.47	21.85
	6H	20.19	21.33	20.61	21.69	22.09	20.20	21.34	20.62	21.70	22.10
	8H	20.36	21.44	20.79	21.83	22.24	20.34	21.42	20.77	21.81	22.21
	12H	20.49	21.52	20.92	21.90	22.33	20.46	21.49	20.89	21.87	22.30
4H	2H	17.94	19.17	18.34	19.52	19.90	18.81	20.04	19.21	20.39	20.77
	3H	19.87	20.88	20.28	21.29	21.69	20.13	21.15	20.54	21.55	21.95
	4H	20.68	21.59	21.11	22.01	22.45	20.65	21.56	21.08	21.98	22.42
	6H	21.33	22.12	21.79	22.57	23.03	21.08	21.88	21.54	22.32	22.78
	8H	21.55	22.29	22.01	22.74	23.21	21.27	22.01	21.74	22.46	22.93
	12H	21.72	22.39	22.20	22.87	23.34	21.45	22.12	21.94	22.60	23.07
8H	4H	20.92	21.66	21.38	22.11	22.57	20.89	21.64	21.36	22.08	22.55
	6H	21.70	22.32	22.20	22.81	23.29	21.44	22.06	21.94	22.55	23.03
	8H	22.02	22.57	22.53	23.08	23.57	21.72	22.27	22.23	22.78	23.27
	12H	22.29	22.78	22.80	23.27	23.83	22.01	22.50	22.52	22.99	23.56
12H	4H	20.93	21.59	21.41	22.07	22.54	20.92	21.58	21.40	22.06	22.54
	6H	21.74	22.29	22.25	22.80	23.29	21.49	22.05	22.01	22.56	23.05
	8H	22.11	22.60	22.62	23.10	23.66	21.83	22.32	22.35	22.82	23.38