

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: P1059103

Luminaire Tested: S123RDRP-S1165D840-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059103
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-30)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDRP-S1165D840-X4F0-XX-UDD-BVL-B
Description: DEFINE 3 BLACK REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

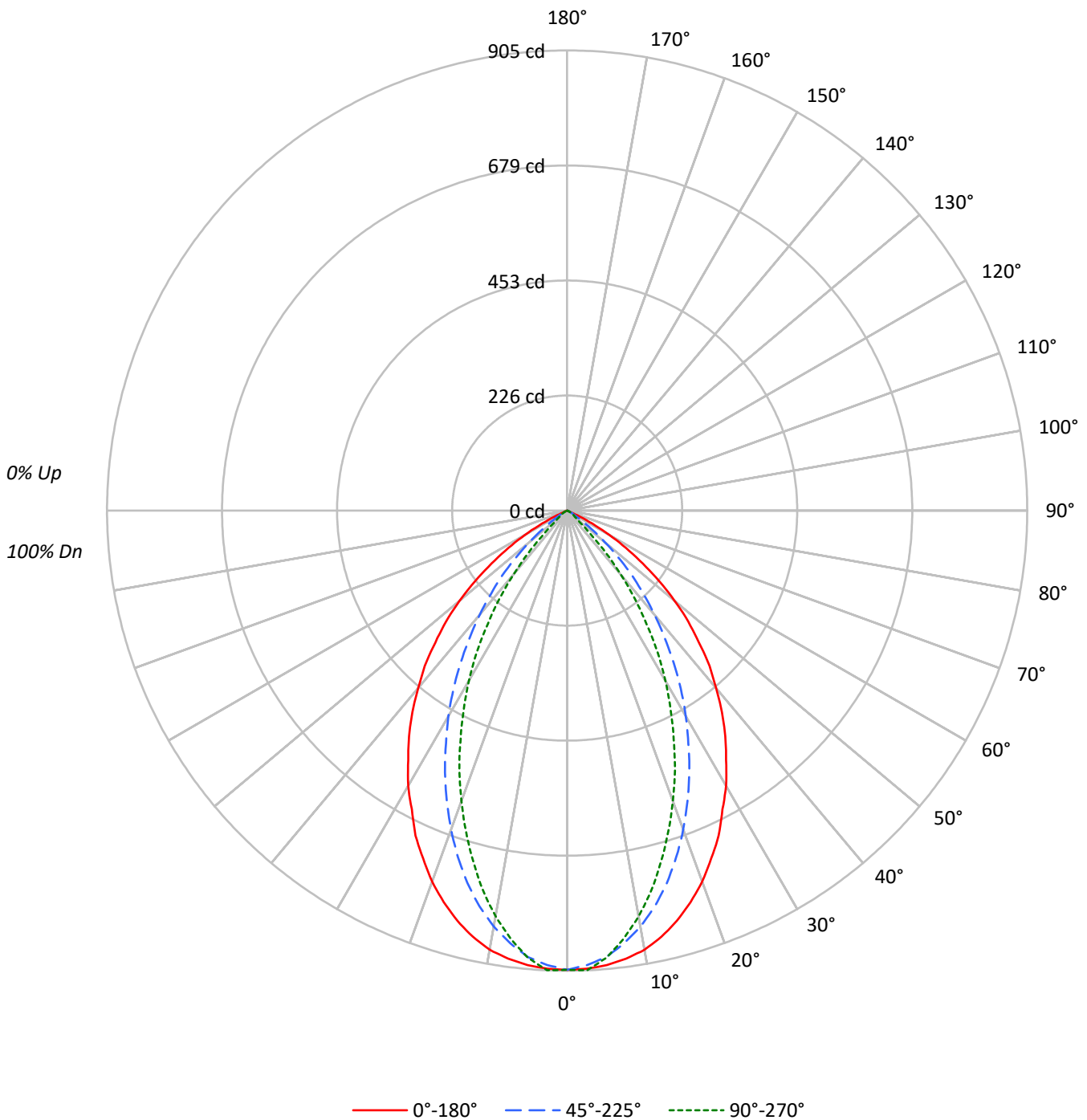
Lumens per Lamp: N/A
Luminaire Lumens: 1030.7 lumens
Efficiency: N/A
Efficacy: 24.7 lumens/watt
Spacing Criteria (0/90/45): 1.06 / 0.81 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 41.8
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	113	110	107	104	110	107	105	103	103	101	100	100	98	97	96	95	94	92					92			
2	106	101	96	92	104	99	95	91	96	92	89	93	90	87	90	87	85	84					84			
3	100	92	87	82	98	91	86	82	88	84	80	86	82	79	83	80	78	76					76			
4	94	85	79	74	92	84	78	74	82	77	73	80	75	72	78	74	71	69					69			
5	88	79	72	67	86	78	71	67	76	70	66	74	69	65	72	68	65	63					63			
6	83	73	66	61	81	72	66	61	70	65	60	69	64	60	67	63	60	58					58			
7	78	68	61	56	77	67	60	56	66	60	56	64	59	55	63	58	55	53					53			
8	74	63	56	52	72	62	56	51	61	55	51	60	55	51	59	54	51	49					49			
9	70	59	52	48	68	58	52	48	57	52	47	56	51	47	55	51	47	46					46			
10	66	55	49	44	65	55	48	44	54	48	44	53	48	44	52	47	44	42					42			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10606	10606	10606
5°	10578	10389	10407
10°	10458	9903	9660
15°	10150	9212	8682
20°	9706	8342	7598
25°	9139	7368	6426
30°	8480	6331	5246
35°	7777	5234	3899
40°	6979	4102	2497
45°	6086	2996	1038
50°	5049	1781	398
55°	3722	745	297
60°	2255	272	171
65°	606	161	81
70°	0	51	51
75°	0	0	68
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6086 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	83.2	8.1
10°-20°	214.6	20.8
20°-30°	267.5	25.9
30°-40°	239.1	23.2
40°-50°	150.9	14.6
50°-60°	63.2	6.1
60°-70°	11.9	1.2
70°-80°	0.4	0.0
80°-90°	0.0	0.0
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°	565.2	54.8
0°-40°	804.3	78.0
0°-60°	1018.4	98.8
0°-90°	1030.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1030.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	903	903	903	903	903	
5°	897	896	881	884	883	85
15°	835	814	758	726	714	234
25°	705	649	569	519	496	323
35°	542	464	365	300	272	338
45°	366	285	180	96	62	283
55°	182	125	36	14	14	163
65°	22	16	6	3	3	31
75°	0	0	0	0	2	0
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	903.2	903.2	903.2	903.2	903.2
2.5°	901.8	903.2	894.5	903.2	904.7
5°	897.4	896.0	881.4	884.3	882.9
7.5°	888.7	884.3	858.2	852.3	849.4
10°	877.1	865.4	830.5	816.0	810.2
12.5°	858.2	842.2	797.1	773.8	765.1
15°	834.9	814.5	757.8	725.8	714.2
17.5°	807.2	778.2	714.2	679.3	661.8
20°	776.7	736.0	667.6	625.4	608.0
22.5°	740.3	695.3	618.2	573.1	554.2
25°	705.4	648.7	568.7	519.3	496.0
27.5°	661.8	602.2	516.3	465.4	440.7
30°	625.4	557.1	466.9	410.2	386.9
32.5°	581.8	510.5	416.0	353.4	331.6
35°	542.5	464.0	365.1	299.6	272.0
37.5°	500.3	418.9	314.2	245.8	219.6
40°	455.3	373.8	267.6	192.0	162.9
42.5°	414.5	328.7	221.1	142.5	113.5
45°	366.5	285.1	180.4	96.0	62.5
47.5°	322.9	244.4	136.7	53.8	33.5
50°	276.4	202.2	97.5	27.6	21.8
52.5°	228.4	161.4	64.0	18.9	17.5
55°	181.8	125.1	36.4	14.5	14.5
57.5°	136.7	90.2	18.9	11.6	10.2
60°	96.0	59.6	11.6	8.7	7.3
62.5°	55.3	34.9	8.7	5.8	5.8
65°	21.8	16.0	5.8	2.9	2.9
67.5°	1.5	4.4	2.9	1.5	1.5
70°	0.0	0.0	1.5	1.5	1.5
72.5°	0.0	0.0	1.5	1.5	1.5
75°	0.0	0.0	0.0	0.0	1.5
77.5°	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	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	13.40	14.57	13.76	14.88	15.20	0.00	0.00	0.00	0.00	0.21
	3H	13.24	14.27	13.62	14.60	14.97	0.00	0.00	0.00	0.00	0.10
	4H	13.15	14.10	13.55	14.46	14.84	0.00	0.00	0.00	0.00	0.05
	6H	13.06	13.93	13.47	14.30	14.70	0.00	0.00	0.00	0.00	0.00
	8H	13.01	13.83	13.44	14.22	14.63	0.00	0.00	0.00	0.00	0.00
	12H	12.96	13.74	13.39	14.13	14.56	0.00	0.00	0.00	0.00	0.00
4H	2H	13.15	14.11	13.56	14.46	14.85	0.00	0.00	0.00	0.00	0.31
	3H	12.99	13.76	13.40	14.16	14.57	0.00	0.00	0.00	0.00	0.20
	4H	12.89	13.57	13.32	13.99	14.44	0.00	0.00	0.00	0.00	0.13
	6H	12.79	13.37	13.26	13.82	14.29	0.00	0.00	0.00	0.00	0.00
	8H	12.72	13.27	13.20	13.72	14.19	0.00	0.00	0.00	0.00	0.00
	12H	12.67	13.14	13.16	13.63	14.11	0.00	0.00	0.00	0.00	0.00
8H	4H	12.72	13.27	13.20	13.72	14.19	0.00	0.00	0.00	0.00	0.00
	6H	12.61	13.05	13.11	13.55	14.03	0.00	0.00	0.00	0.00	0.00
	8H	12.54	12.93	13.06	13.45	13.95	0.00	0.00	0.00	0.00	0.00
	12H	12.48	12.83	13.00	13.33	13.90	0.00	0.00	0.00	0.00	0.00
12H	4H	12.67	13.14	13.16	13.63	14.11	0.00	0.00	0.00	0.00	0.00
	6H	12.54	12.93	13.06	13.45	13.95	0.00	0.00	0.00	0.00	0.00
	8H	12.48	12.83	13.00	13.33	13.90	0.00	0.00	0.00	0.00	0.00