

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: P242708

Luminaire Tested: S124RDRP-S575D835-X4F0-XX-UDD-F-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P242708
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-26)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDRP-S575D835-X4F0-XX-UDD-F-W
Description: DEFINE 4 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

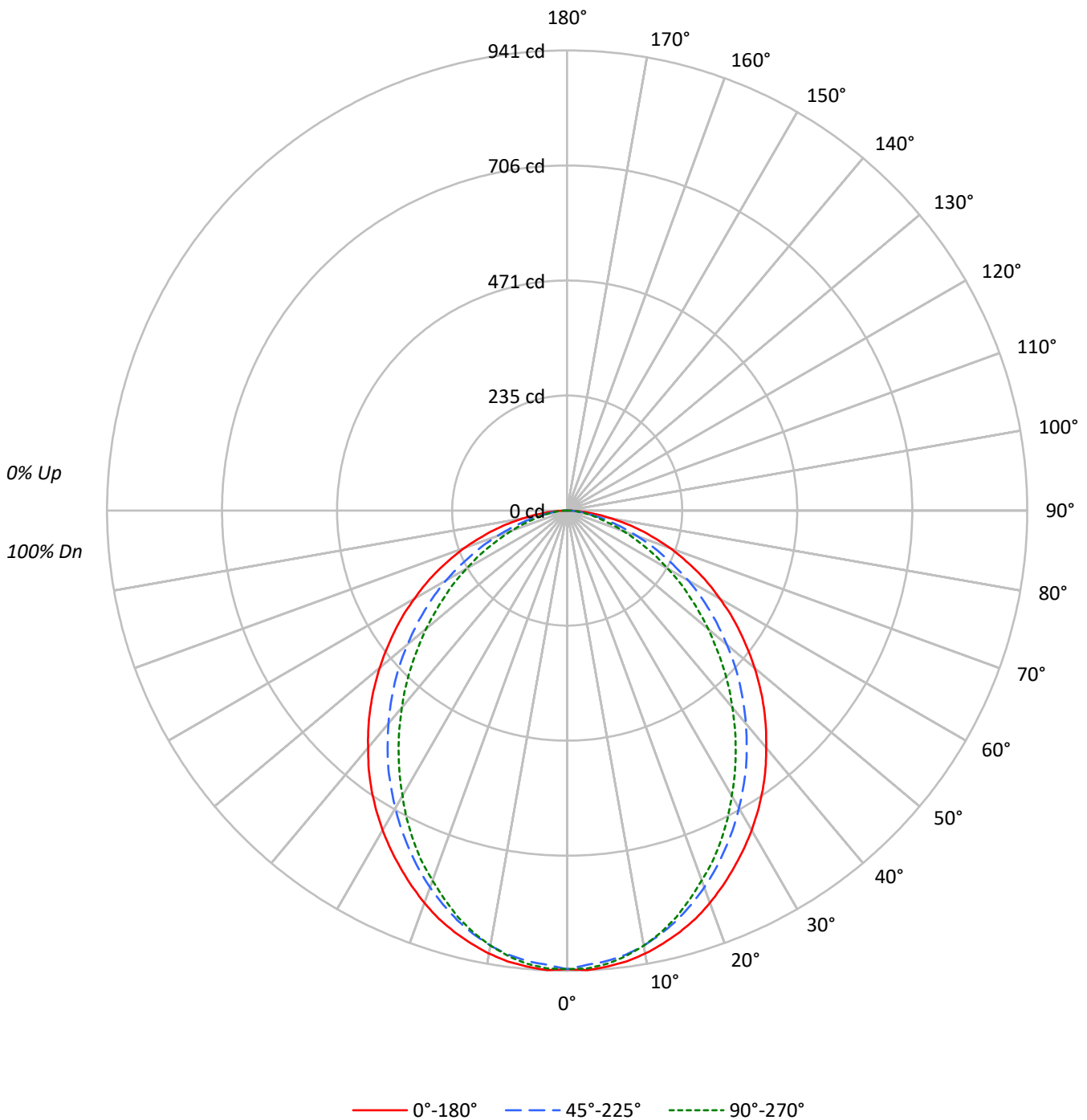
Lumens per Lamp: N/A
Luminaire Lumens: 2166.7 lumens
Efficiency: N/A
Efficacy: 115.3 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.09 / 1.24
Luminous Opening: Rectangular (W 0.31' x L: 3.88' x H: 0')
CIE Type: Direct

Input Watts (W): 18.8
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

TEST NUMBER: P242708

CATALOG NUMBER: S124RDRP-S575D835-X4F0-XX-UDD-F-W

Luminous Intensity Polar Plot





TEST NUMBER: P242708

CATALOG NUMBER: S124RDRP-S575D835-X4F0-XX-UDD-F-W

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	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	99	96	99	96	93	95	92	90	91	89	87	85				85
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	74	72				72
3	92	82	74	68	89	80	73	67	77	71	66	75	69	65	72	68	64	62				62
4	84	73	65	58	82	72	64	58	69	62	57	67	61	56	65	60	56	54				54
5	78	66	57	51	76	65	56	50	62	55	50	61	54	49	59	53	49	47				47
6	72	59	51	45	70	58	50	44	57	49	44	55	49	44	53	48	43	41				41
7	67	54	46	40	65	53	45	40	52	45	39	50	44	39	49	43	39	37				37
8	63	50	41	36	61	49	41	36	48	40	35	46	40	35	45	39	35	33				33
9	59	46	38	32	57	45	37	32	44	37	32	43	36	32	42	36	32	30				30
10	55	42	35	29	54	42	34	29	41	34	29	40	33	29	39	33	29	27				27

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8335	8335	8335
5°	8354	8252	8304
10°	8302	8153	8153
15°	8207	7982	7922
20°	8075	7757	7614
25°	7908	7493	7303
30°	7745	7215	6913
35°	7566	6926	6522
40°	7349	6599	6099
45°	7149	6273	5668
50°	6921	5898	5213
55°	6676	5508	4717
60°	6407	5081	4212
65°	6163	4545	3714
70°	5803	3956	3153
75°	5351	3280	2566
80°	4668	2498	2355
85°	3957	2274	2121

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 7149 cd/sqm



TEST NUMBER: P242708

CATALOG NUMBER: S124RDRP-S575D835-X4F0-XX-UDD-F-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	88.2	4.1
10°-20°	245.9	11.3
20°-30°	355.0	16.4
30°-40°	402.3	18.6
40°-50°	388.4	17.9
50°-60°	322.9	14.9
60°-70°	222.9	10.3
70°-80°	112.6	5.2
80°-90°	28.6	1.3
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°	689.0	31.8
0°-40°	1091.3	50.4
0°-60°	1802.6	83.2
0°-90°	2166.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2166.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	938	938	938	938	938	
5°	936	933	925	932	931	89
15°	892	885	867	866	861	251
25°	806	793	764	752	745	372
35°	697	674	638	614	601	436
45°	569	542	499	464	451	439
55°	431	402	355	318	304	385
65°	293	262	216	185	177	289
75°	156	129	96	79	75	164
85°	39	24	22	21	21	45
90°	0	0	0	0	0	



TEST NUMBER: P242708

CATALOG NUMBER: S124RDRP-S575D835-X4F0-XX-UDD-F-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	937.7	937.7	937.7	937.7	937.7
2.5°	940.6	937.7	929.8	937.7	937.0
5°	936.3	933.4	924.8	932.0	930.6
7.5°	929.8	927.0	916.2	921.2	919.1
10°	919.8	916.2	903.3	906.1	903.3
12.5°	906.9	902.6	886.8	888.2	883.9
15°	891.8	885.3	867.4	865.9	860.9
17.5°	874.6	865.2	844.4	840.8	833.6
20°	853.7	844.4	820.0	814.2	804.9
22.5°	830.8	820.0	793.4	784.1	776.9
25°	806.3	793.4	764.0	751.8	744.6
27.5°	781.2	765.4	734.5	720.2	710.1
30°	754.6	736.7	702.9	685.0	673.5
32.5°	726.6	705.8	670.6	649.1	638.3
35°	697.2	674.2	638.3	613.9	601.0
37.5°	666.3	642.6	603.1	576.6	563.7
40°	633.3	609.6	568.7	538.5	525.6
42.5°	601.7	576.6	533.5	502.6	489.0
45°	568.7	542.1	499.0	463.8	450.9
47.5°	534.9	507.6	463.1	426.5	412.1
50°	500.5	472.5	426.5	390.6	377.0
52.5°	465.3	438.0	390.6	354.0	339.6
55°	430.8	402.1	355.4	318.1	304.4
57.5°	397.1	366.9	321.0	282.9	272.8
60°	360.4	331.7	285.8	248.4	236.9
62.5°	327.4	297.3	249.9	216.1	207.5
65°	293.0	262.1	216.1	185.3	176.6
67.5°	257.1	227.6	184.5	157.2	147.2
70°	223.3	193.1	152.2	128.5	121.3
72.5°	187.4	160.8	122.8	103.4	96.9
75°	155.8	129.2	95.5	79.0	74.7
77.5°	122.8	99.8	71.1	59.6	58.2
80°	91.2	70.4	48.8	46.7	46.0
82.5°	63.9	45.2	35.2	33.7	33.0
85°	38.8	24.4	22.3	20.8	20.8
87.5°	16.5	10.8	10.1	9.3	10.1
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P242708
 CATALOG NUMBER: S124RDRP-S575D835-X4F0-XX-UDD-F-W

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	18.71	20.28	19.08	20.59	20.90	16.74	18.31	17.11	18.62	18.94
	3H	20.48	21.89	20.86	22.22	22.58	17.99	19.40	18.37	19.73	20.09
	4H	21.14	22.46	21.54	22.81	23.19	18.37	19.69	18.77	20.04	20.42
	6H	21.62	22.84	22.03	23.21	23.60	18.63	19.86	19.04	20.22	20.61
	8H	21.77	22.93	22.19	23.32	23.72	18.73	19.89	19.15	20.28	20.68
	12H	21.87	22.98	22.30	23.36	23.79	18.79	19.91	19.22	20.29	20.72
4H	2H	19.05	20.37	19.45	20.72	21.10	17.44	18.76	17.83	19.11	19.48
	3H	21.01	22.12	21.42	22.51	22.92	18.87	19.97	19.28	20.37	20.77
	4H	21.79	22.79	22.23	23.20	23.64	19.32	20.32	19.76	20.73	21.17
	6H	22.39	23.26	22.85	23.70	24.16	19.67	20.54	20.13	20.98	21.44
	8H	22.58	23.39	23.05	23.84	24.30	19.80	20.61	20.26	21.05	21.52
	12H	22.72	23.45	23.21	23.93	24.40	19.90	20.62	20.38	21.10	21.57
8H	4H	21.89	22.70	22.35	23.14	23.61	19.64	20.45	20.10	20.89	21.36
	6H	22.56	23.23	23.06	23.72	24.20	20.07	20.74	20.56	21.23	21.70
	8H	22.80	23.40	23.32	23.91	24.40	20.25	20.85	20.76	21.36	21.84
	12H	23.00	23.53	23.51	24.02	24.58	20.40	20.93	20.91	21.43	21.99
12H	4H	21.88	22.60	22.36	23.08	23.55	19.68	20.40	20.16	20.88	21.35
	6H	22.55	23.15	23.06	23.66	24.15	20.12	20.72	20.63	21.23	21.72
	8H	22.83	23.36	23.34	23.85	24.42	20.35	20.88	20.86	21.37	21.94