

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: P242726

Luminaire Tested: S124RDRP-S350D940-X4F0-XX-UDD-F-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P242726
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-S350D940-X4F0-XX-UDD-F-W
Description: DEFINE 4 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

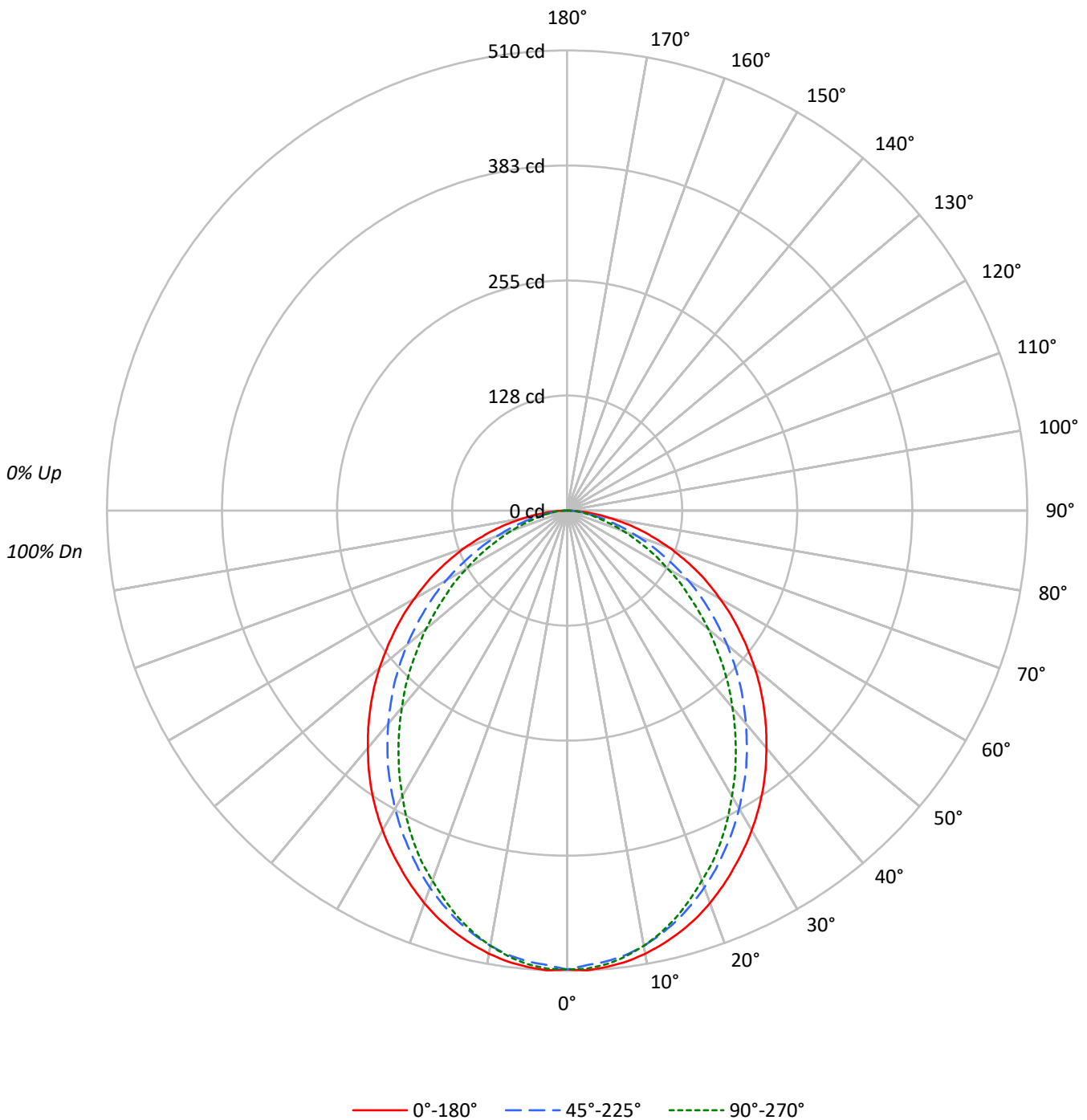
Lumens per Lamp: N/A
Luminaire Lumens: 1174.9 lumens
Efficiency: N/A
Efficacy: 101.3 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.09 / 1.24
Luminous Opening: Rectangular (W 0.31' x L: 3.88' x H: 0')
CIE Type: Direct

Input Watts (W): 11.6
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

TEST NUMBER: P242726

CATALOG NUMBER: S124RDRP-S350D940-X4F0-XX-UDD-F-W

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	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°	4520	4520	4520
5°	4530	4475	4502
10°	4501	4421	4421
15°	4450	4328	4296
20°	4379	4206	4129
25°	4288	4063	3959
30°	4200	3913	3748
35°	4103	3756	3536
40°	3985	3579	3307
45°	3877	3402	3074
50°	3753	3199	2827
55°	3620	2986	2559
60°	3474	2756	2284
65°	3342	2465	2015
70°	3147	2144	1710
75°	2902	1779	1391
80°	2529	1357	1275
85°	2142	1234	1152

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3877 cd/sqm

TEST NUMBER: P242726

CATALOG NUMBER: S124RDRP-S350D940-X4F0-XX-UDD-F-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	47.8	4.1
10°-20°	133.3	11.3
20°-30°	192.5	16.4
30°-40°	218.1	18.6
40°-50°	210.6	17.9
50°-60°	175.1	14.9
60°-70°	120.9	10.3
70°-80°	61.1	5.2
80°-90°	15.5	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°	373.6	31.8
0°-40°	591.7	50.4
0°-60°	977.5	83.2
0°-90°	1174.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1174.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	508	508	508	508	508	
5°	508	506	502	505	505	48
15°	484	480	470	470	467	136
25°	437	430	414	408	404	201
35°	378	366	346	333	326	236
45°	308	294	271	252	244	238
55°	234	218	193	172	165	209
65°	159	142	117	100	96	157
75°	84	70	52	43	40	89
85°	21	13	12	11	11	24
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	508.5	508.5	508.5	508.5	508.5
2.5°	510.0	508.5	504.2	508.5	508.1
5°	507.7	506.1	501.5	505.4	504.6
7.5°	504.2	502.6	496.8	499.5	498.4
10°	498.7	496.8	489.8	491.3	489.8
12.5°	491.7	489.4	480.8	481.6	479.3
15°	483.6	480.1	470.3	469.5	466.8
17.5°	474.2	469.2	457.9	455.9	452.0
20°	462.9	457.9	444.6	441.5	436.5
22.5°	450.5	444.6	430.2	425.2	421.3
25°	437.2	430.2	414.3	407.6	403.7
27.5°	423.6	415.0	398.3	390.5	385.1
30°	409.2	399.5	381.2	371.4	365.2
32.5°	394.0	382.7	363.6	352.0	346.1
35°	378.1	365.6	346.1	332.9	325.9
37.5°	361.3	348.5	327.0	312.6	305.6
40°	343.4	330.6	308.4	292.0	285.0
42.5°	326.3	312.6	289.3	272.5	265.1
45°	308.4	294.0	270.6	251.5	244.5
47.5°	290.1	275.3	251.1	231.3	223.5
50°	271.4	256.2	231.3	211.8	204.4
52.5°	252.3	237.5	211.8	191.9	184.2
55°	233.6	218.0	192.7	172.5	165.1
57.5°	215.3	199.0	174.0	153.4	147.9
60°	195.4	179.9	155.0	134.7	128.5
62.5°	177.5	161.2	135.5	117.2	112.5
65°	158.9	142.1	117.2	100.5	95.8
67.5°	139.4	123.4	100.1	85.3	79.8
70°	121.1	104.7	82.5	69.7	65.8
72.5°	101.6	87.2	66.6	56.1	52.6
75°	84.5	70.1	51.8	42.8	40.5
77.5°	66.6	54.1	38.5	32.3	31.5
80°	49.4	38.2	26.5	25.3	24.9
82.5°	34.7	24.5	19.1	18.3	17.9
85°	21.0	13.2	12.1	11.3	11.3
87.5°	9.0	5.8	5.5	5.1	5.5
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	16.58	18.15	16.95	18.47	18.78	14.61	16.18	14.98	16.49	16.81
	3H	18.36	19.76	18.73	20.09	20.45	15.87	17.28	16.25	17.60	17.97
	4H	19.02	20.34	19.41	20.69	21.06	16.24	17.57	16.64	17.92	18.29
	6H	19.49	20.72	19.90	21.08	21.47	16.51	17.73	16.92	18.10	18.49
	8H	19.64	20.81	20.07	21.20	21.60	16.60	17.77	17.02	18.15	18.56
	12H	19.74	20.86	20.17	21.24	21.67	16.66	17.78	17.09	18.16	18.59
4H	2H	16.92	18.25	17.32	18.59	18.97	15.31	16.63	15.71	16.98	17.36
	3H	18.89	19.99	19.30	20.39	20.79	16.74	17.85	17.15	18.24	18.65
	4H	19.67	20.66	20.10	21.08	21.51	17.20	18.19	17.63	18.60	19.04
	6H	20.27	21.13	20.72	21.57	22.03	17.55	18.41	18.00	18.85	19.31
	8H	20.46	21.27	20.92	21.71	22.18	17.67	18.48	18.13	18.92	19.39
	12H	20.60	21.32	21.08	21.80	22.27	17.77	18.49	18.25	18.97	19.44
8H	4H	19.76	20.57	20.23	21.02	21.48	17.51	18.32	17.97	18.76	19.23
	6H	20.44	21.10	20.93	21.59	22.07	17.94	18.61	18.44	19.10	19.58
	8H	20.68	21.28	21.19	21.79	22.27	18.12	18.72	18.63	19.23	19.72
	12H	20.87	21.40	21.38	21.90	22.46	18.28	18.81	18.79	19.30	19.86
12H	4H	19.75	20.48	20.24	20.96	21.43	17.55	18.27	18.03	18.75	19.22
	6H	20.43	21.03	20.94	21.53	22.02	17.99	18.60	18.51	19.10	19.59
	8H	20.71	21.24	21.22	21.73	22.29	18.22	18.76	18.73	19.25	19.81