

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: NEO-RAY

Report Number: P242663

Luminaire Tested: **S124DR-S350D927-X4F0-XX-UDD-D-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242663
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-16)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S124DR-S350D927-X4F0-XX-UDD-D-W
Description: DEFINE 4 DIRECT RECESSED WITH SATIN DROP DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 2700K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1053.1 lumens
Efficiency: N/A
Efficacy: 90.8 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.39
Luminous Opening: Rectangular w/ Sides (W: 0.31' x L: 3.88' x H: 0.08')
CIE Type: Direct

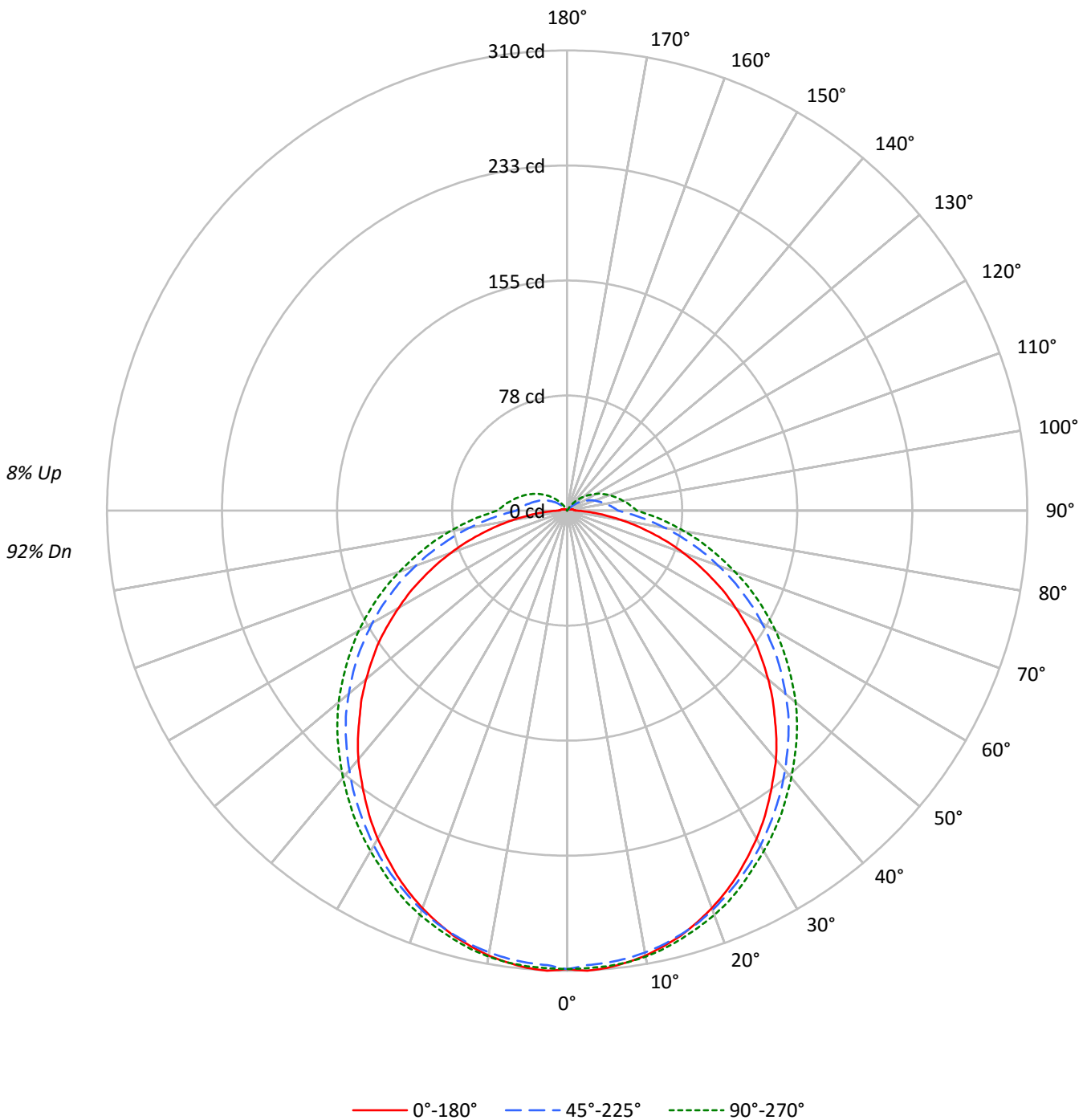
Input Watts (W): 11.6
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P242663

CATALOG NUMBER: S124DR-S350D927-X4F0-XX-UDD-D-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	0
RCR																		
0	117	117	117	117	114	114	114	114	107	107	107	101	101	101	95	95	95	92
1	105	100	95	91	102	97	93	89	91	88	84	86	83	80	81	79	77	74
2	95	86	79	73	92	84	77	71	79	73	68	74	70	66	70	67	63	60
3	87	75	67	60	83	73	65	59	69	62	57	65	60	55	62	57	53	50
4	79	66	57	50	76	65	56	49	61	54	48	58	52	47	55	49	45	43
5	73	59	50	43	70	58	49	42	55	47	41	52	45	40	49	44	39	37
6	67	53	44	37	64	52	43	37	49	42	36	47	40	35	45	39	34	32
7	62	48	39	33	60	47	38	32	45	37	32	43	36	31	41	35	30	28
8	58	44	35	29	56	43	35	29	41	33	28	39	32	28	37	31	27	25
9	54	40	32	26	52	39	31	26	38	30	25	36	29	25	34	29	24	22
10	50	37	29	24	49	36	29	23	35	28	23	33	27	23	32	26	22	20

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2746	2746	2746
5°	2754	2681	2687
10°	2737	2634	2630
15°	2712	2580	2564
20°	2675	2522	2500
25°	2633	2457	2429
30°	2588	2392	2356
35°	2537	2326	2293
40°	2495	2262	2227
45°	2434	2203	2169
50°	2382	2136	2109
55°	2331	2072	2038
60°	2247	1991	1973
65°	2155	1904	1893
70°	2047	1804	1800
75°	1892	1693	1714
80°	1720	1586	1628
85°	1498	1483	1570



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	29.3	2.8
10°-20°	83.9	8.0
20°-30°	126.8	12.0
30°-40°	153.4	14.6
40°-50°	162.2	15.4
50°-60°	152.6	14.5
60°-70°	126.6	12.0
70°-80°	88.9	8.4
80°-90°	50.1	4.8
90°-100°	29.8	2.8
100°-110°	22.1	2.1
110°-120°	14.8	1.4
120°-130°	8.4	0.8
130°-140°	3.6	0.3
140°-150°	0.7	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	239.9	22.8
0°-40°	393.3	37.3
0°-60°	708.1	67.2
0°-90°	973.7	92.5
90°-120°	66.8	6.3
90°-150°	79.4	7.5
90°-180°	79.0	7.5
0°-180°	1053.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	309	309	309	309	309	
5°	309	308	306	308	308	29
15°	296	297	296	299	298	84
25°	271	273	274	278	278	125
35°	237	241	245	250	251	149
45°	198	204	211	217	219	153
55°	155	162	173	180	182	138
65°	107	118	130	139	142	106
75°	60	72	87	96	100	63
85°	18	33	48	59	62	19
90°	6	19	34	44	47	4
95°	4	16	30	39	42	4
105°	3	10	23	32	34	4
115°	2	5	16	24	26	2
125°	1	1	10	16	18	1
135°	1	1	3	9	11	1
145°	0	0	0	2	4	0
155°	0	0	0	0	0	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



TEST NUMBER: P242663

CATALOG NUMBER: S124DR-S350D927-X4F0-XX-UDD-D-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	308.9	308.9	308.9	308.9	308.9
2.5°	310.3	309.2	306.5	308.9	308.5
5°	309.2	308.2	305.8	308.5	308.2
7.5°	307.1	306.5	304.4	307.5	307.1
10°	304.4	304.0	302.3	305.4	305.1
12.5°	300.6	300.6	299.5	302.3	302.3
15°	296.4	296.8	295.7	298.8	298.5
17.5°	290.9	291.9	291.6	294.7	294.3
20°	285.0	286.0	286.4	289.9	289.9
22.5°	278.4	279.8	280.5	284.0	284.7
25°	271.2	273.2	274.3	278.1	278.4
27.5°	263.2	266.3	267.7	271.2	271.5
30°	255.3	258.0	260.5	264.3	264.9
32.5°	246.6	250.1	252.8	257.3	258.0
35°	237.3	241.4	244.9	249.7	250.8
37.5°	227.9	232.8	236.9	241.8	242.8
40°	218.9	223.4	228.3	233.5	234.9
42.5°	208.6	213.8	219.6	225.5	226.6
45°	197.8	204.4	211.0	216.9	218.6
47.5°	187.8	194.4	202.0	207.9	210.0
50°	176.7	184.4	192.0	198.9	201.0
52.5°	165.7	173.3	182.3	189.2	191.3
55°	155.0	162.2	172.6	179.5	181.6
57.5°	142.9	151.8	161.9	170.2	171.9
60°	131.1	140.1	151.5	159.5	162.2
62.5°	119.7	129.7	141.1	149.1	151.8
65°	107.2	118.3	130.1	138.7	141.5
67.5°	95.5	107.2	119.7	128.3	131.1
70°	83.4	95.1	108.3	117.6	120.0
72.5°	71.6	83.7	97.9	106.9	109.6
75°	59.5	72.3	86.8	96.5	99.6
77.5°	48.1	61.6	76.8	86.5	89.9
80°	37.7	51.5	66.8	77.1	79.9
82.5°	27.3	41.9	57.1	67.8	70.9
85°	18.3	32.9	48.4	58.8	62.3
87.5°	11.4	25.6	40.8	50.8	54.0
90°	5.5	19.4	34.2	44.3	47.0
92.5°	5.2	17.3	32.2	41.9	44.6
95°	4.5	15.9	30.1	39.4	42.5
97.5°	4.2	14.2	28.4	37.4	40.5
100°	3.8	12.8	26.3	35.6	38.0
102.5°	3.8	11.4	24.6	33.6	36.3
105°	3.1	10.0	22.8	31.5	34.2
107.5°	3.1	9.0	21.1	29.7	32.2
110°	2.8	7.6	19.7	27.7	30.4



TEST NUMBER: P242663

CATALOG NUMBER: S124DR-S350D927-X4F0-XX-UDD-D-W

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	2.4	6.6	18.0	25.6	28.4
115°	2.1	5.2	16.3	23.9	26.3
117.5°	2.1	4.2	14.5	21.8	24.6
120°	1.7	2.8	12.8	19.7	22.5
122.5°	1.7	1.7	11.1	18.0	20.4
125°	1.4	1.0	9.7	16.3	18.3
127.5°	1.4	1.0	8.0	14.2	16.6
130°	1.0	0.7	6.2	12.5	14.5
132.5°	1.0	0.7	4.8	10.7	12.8
135°	0.7	0.7	3.1	8.6	10.7
137.5°	0.7	0.3	1.7	6.9	8.6
140°	0.7	0.3	0.7	5.2	6.9
142.5°	0.3	0.3	0.0	3.8	5.2
145°	0.3	0.0	0.0	2.1	3.5
147.5°	0.3	0.0	0.0	0.3	1.7
150°	0.3	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)