

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: P243533

Luminaire Tested: **S124DR-H350D835-X4F0-XX-UDD-D-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P243533
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-55)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S124DR-H350D835-X4F0-XX-UDD-D-W
Description: DEFINE 4 DIRECT RECESSED WITH SATIN DROP DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1346.5 lumens
Efficiency: N/A
Efficacy: 120.2 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

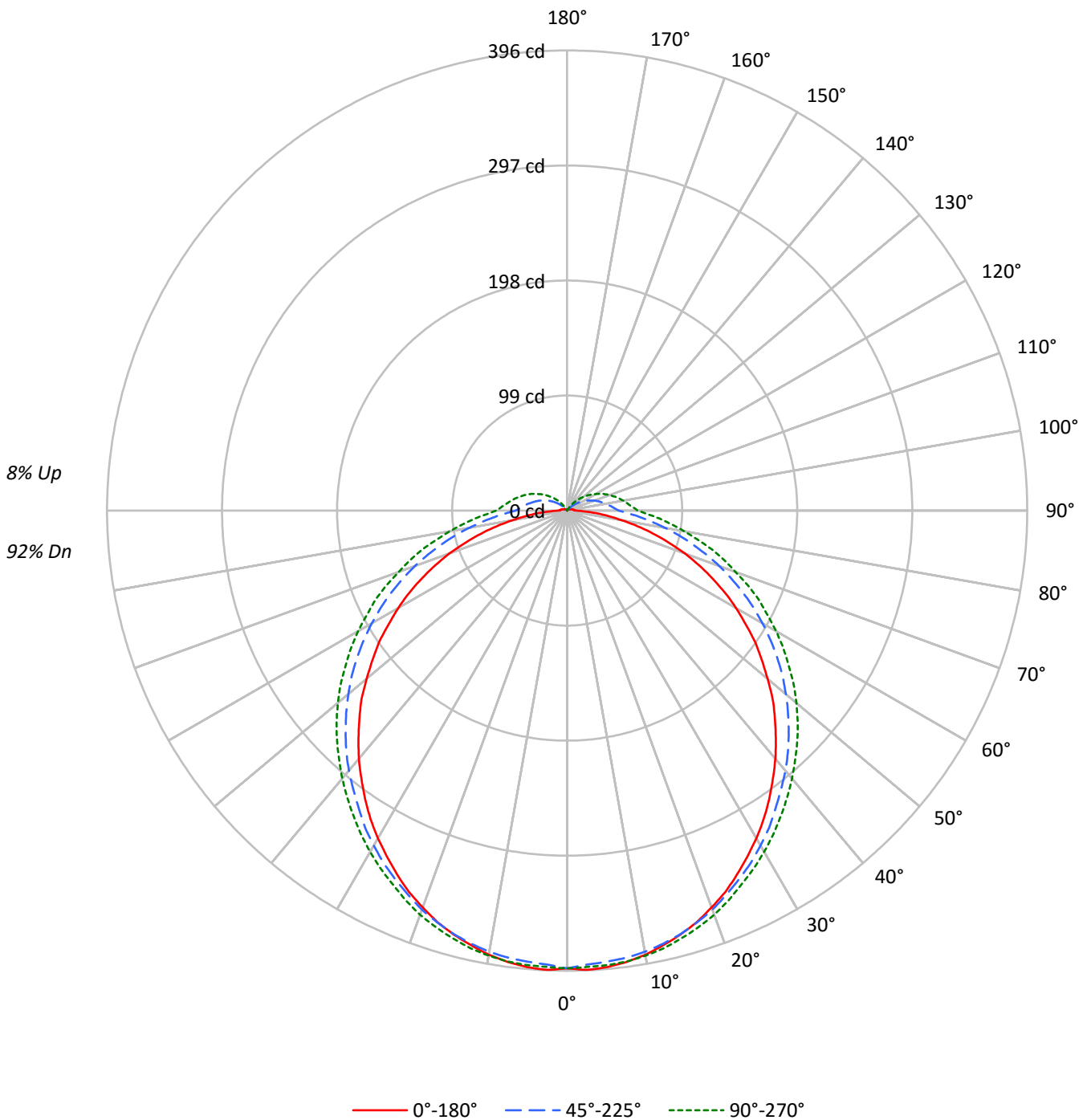
Input Watts (W): 11.2
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P243533

CATALOG NUMBER: S124DR-H350D835-X4F0-XX-UDD-D-W

Luminous Intensity Polar Plot





TEST NUMBER: P243533

CATALOG NUMBER: S124DR-H350D835-X4F0-XX-UDD-D-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	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	86	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	46	55	49	45	43
5	72	59	50	43	70	58	49	42	55	47	41	52	45	40	49	43	39	37
6	67	53	44	37	64	52	43	37	49	42	36	47	40	35	44	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	37	30	25	36	29	25	34	29	24	22
10	50	37	29	24	49	36	29	23	35	28	23	33	27	22	32	26	22	20

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3501	3501	3501
5°	3513	3416	3424
10°	3490	3360	3353
15°	3455	3291	3272
20°	3411	3219	3191
25°	3358	3135	3097
30°	3302	3056	3016
35°	3240	2970	2932
40°	3178	2896	2854
45°	3112	2815	2780
50°	3036	2734	2702
55°	2971	2648	2613
60°	2878	2552	2525
65°	2769	2444	2437
70°	2640	2323	2311
75°	2435	2173	2219
80°	2158	2028	2091
85°	1957	1912	2016



TEST NUMBER: P243533

CATALOG NUMBER: S124DR-H350D835-X4F0-XX-UDD-D-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	37.3	2.8
10°-20°	106.9	7.9
20°-30°	161.9	12.0
30°-40°	196.0	14.6
40°-50°	207.3	15.4
50°-60°	195.3	14.5
60°-70°	162.3	12.1
70°-80°	114.1	8.5
80°-90°	64.3	4.8
90°-100°	38.1	2.8
100°-110°	28.2	2.1
110°-120°	18.8	1.4
120°-130°	10.6	0.8
130°-140°	4.5	0.3
140°-150°	0.9	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	306.1	22.7
0°-40°	502.1	37.3
0°-60°	904.7	67.2
0°-90°	1245.3	92.5
90°-120°	85.2	6.3
90°-150°	101.2	7.5
90°-180°	101.0	7.5
0°-180°	1346.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	394	394	394	394	394	
5°	394	393	390	393	393	37
15°	378	378	377	381	381	106
25°	346	349	350	355	355	159
35°	303	308	313	319	321	190
45°	253	261	270	278	280	195
55°	198	208	221	230	233	176
65°	138	152	167	178	182	136
75°	77	93	111	124	129	81
85°	24	42	62	76	80	25
90°	7	25	44	56	61	5
95°	6	20	38	51	54	5
105°	4	13	29	40	44	4
115°	3	7	20	30	34	3
125°	2	1	12	20	23	2
135°	1	1	4	11	13	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: P243533

CATALOG NUMBER: S124DR-H350D835-X4F0-XX-UDD-D-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	393.9	393.9	393.9	393.9	393.9
2.5°	395.6	394.4	391.0	393.5	393.1
5°	394.4	392.7	389.7	393.1	392.7
7.5°	391.8	390.6	388.1	391.8	391.4
10°	388.1	387.2	385.6	388.9	388.9
12.5°	383.0	383.0	381.8	385.6	385.6
15°	377.6	378.4	377.2	381.4	381.0
17.5°	371.3	372.2	371.7	375.9	375.9
20°	363.4	364.6	365.5	370.1	370.1
22.5°	355.4	357.1	357.9	363.0	363.0
25°	345.8	348.7	350.0	355.0	355.0
27.5°	335.7	339.5	342.0	346.6	347.5
30°	325.7	329.9	332.8	337.8	339.1
32.5°	314.8	319.0	323.6	328.6	330.3
35°	303.1	308.1	312.7	319.4	320.7
37.5°	290.9	296.8	302.3	309.4	311.0
40°	278.8	285.9	292.2	298.9	301.0
42.5°	265.8	272.9	281.3	288.4	290.5
45°	252.9	260.8	269.6	277.6	280.1
47.5°	239.9	248.2	257.9	266.2	269.2
50°	225.2	234.4	245.7	254.1	257.5
52.5°	211.0	221.0	233.6	242.0	245.7
55°	197.6	208.1	220.6	230.2	232.8
57.5°	182.1	193.8	207.6	218.1	220.6
60°	167.9	179.6	194.2	204.7	207.6
62.5°	153.2	165.8	180.8	191.3	194.2
65°	137.7	151.5	167.0	177.5	182.1
67.5°	122.7	136.5	152.8	164.5	168.3
70°	107.6	121.8	139.4	151.1	154.1
72.5°	91.7	107.2	125.2	137.3	141.5
75°	76.6	92.9	111.4	123.9	128.9
77.5°	62.0	79.1	98.4	111.4	114.7
80°	47.3	66.1	85.4	98.4	102.6
82.5°	35.6	53.2	73.3	87.1	90.4
85°	23.9	42.3	62.4	75.8	80.0
87.5°	14.2	33.1	52.3	64.9	69.1
90°	7.1	24.7	44.4	56.5	60.7
92.5°	6.3	22.2	41.0	53.2	57.4
95°	5.9	20.1	38.5	50.7	54.0
97.5°	5.4	18.4	36.0	47.7	51.5
100°	5.0	16.3	33.9	45.2	49.0
102.5°	4.6	14.7	31.4	42.7	46.5
105°	4.2	13.0	29.3	40.2	44.0
107.5°	3.8	11.3	27.2	37.7	41.4
110°	3.3	9.6	25.1	35.2	38.9



TEST NUMBER: P243533

CATALOG NUMBER: S124DR-H350D835-X4F0-XX-UDD-D-W

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	2.9	8.4	22.6	32.7	36.4
115°	2.9	6.7	20.5	30.1	33.9
117.5°	2.5	5.0	18.4	27.6	31.0
120°	2.5	3.8	16.3	25.1	28.5
122.5°	2.1	2.5	14.2	23.0	26.0
125°	1.7	1.3	12.1	20.5	23.4
127.5°	1.7	1.3	10.0	18.0	20.9
130°	1.3	1.3	8.0	15.5	18.4
132.5°	1.3	0.8	5.9	13.4	15.9
135°	0.8	0.8	3.8	10.9	13.4
137.5°	0.8	0.4	2.5	8.8	11.3
140°	0.8	0.4	0.8	6.7	8.8
142.5°	0.4	0.4	0.0	4.6	6.3
145°	0.4	0.0	0.0	2.5	4.2
147.5°	0.4	0.0	0.0	0.4	2.1
150°	0.0	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)