

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: P243534

Luminaire Tested: **S124DR-H575D835-X4F0-XX-UDD-D-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P243534
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-H575D835-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: 2144.4 lumens
Efficiency: N/A
Efficacy: 124.7 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

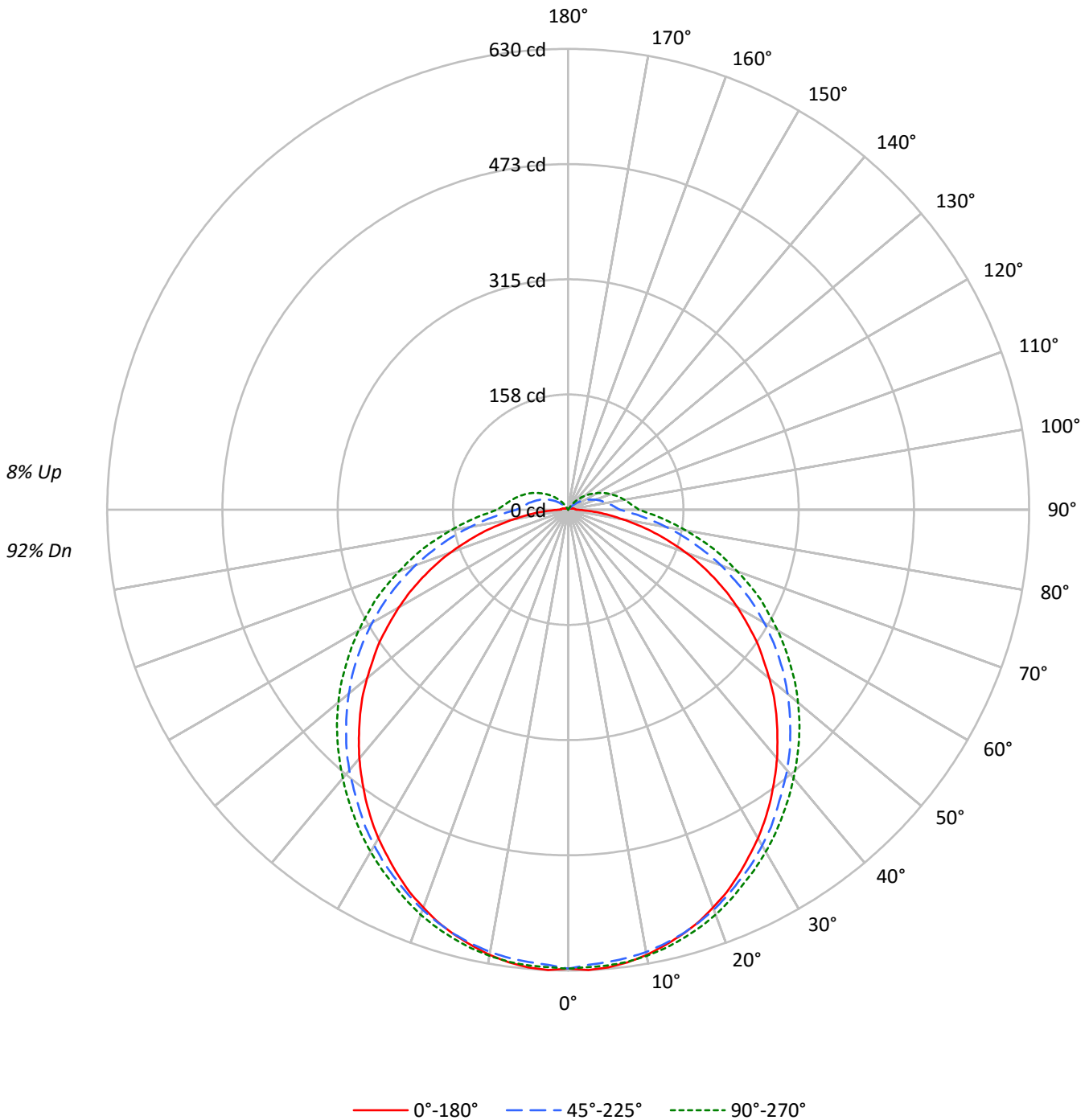
Input Watts (W): 17.2
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P243534

CATALOG NUMBER: S124DR-H575D835-X4F0-XX-UDD-D-W

Luminous Intensity Polar Plot





TEST NUMBER: P243534

CATALOG NUMBER: S124DR-H575D835-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°	5576	5576	5576
5°	5593	5441	5452
10°	5557	5350	5339
15°	5502	5242	5211
20°	5432	5125	5081
25°	5348	4992	4931
30°	5259	4867	4803
35°	5160	4729	4670
40°	5061	4611	4545
45°	4956	4483	4426
50°	4836	4354	4302
55°	4732	4217	4160
60°	4581	4064	4022
65°	4409	3893	3881
70°	4204	3699	3679
75°	3879	3459	3534
80°	3436	3230	3327
85°	3111	3042	3207



TEST NUMBER: P243534

CATALOG NUMBER: S124DR-H575D835-X4F0-XX-UDD-D-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	59.4	2.8
10°-20°	170.3	7.9
20°-30°	257.8	12.0
30°-40°	312.1	14.6
40°-50°	330.1	15.4
50°-60°	311.0	14.5
60°-70°	258.4	12.1
70°-80°	181.7	8.5
80°-90°	102.3	4.8
90°-100°	60.7	2.8
100°-110°	44.9	2.1
110°-120°	30.0	1.4
120°-130°	16.9	0.8
130°-140°	7.2	0.3
140°-150°	1.4	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	487.5	22.7
0°-40°	799.6	37.3
0°-60°	1440.8	67.2
0°-90°	1983.2	92.5
90°-120°	135.6	6.3
90°-150°	161.2	7.5
90°-180°	161.0	7.5
0°-180°	2144.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	627	627	627	627	627	
5°	628	625	621	626	625	60
15°	601	603	601	607	607	170
25°	551	555	557	565	565	254
35°	483	491	498	509	511	302
45°	403	415	429	442	446	311
55°	315	331	351	367	371	280
65°	219	241	266	283	290	217
75°	122	148	177	197	205	129
85°	38	67	99	121	127	39
90°	11	39	71	90	97	8
95°	9	32	61	81	86	7
105°	7	21	47	64	70	7
115°	5	11	33	48	54	4
125°	3	2	19	33	37	3
135°	1	1	6	17	21	1
145°	1	0	0	4	7	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: P243534

CATALOG NUMBER: S124DR-H575D835-X4F0-XX-UDD-D-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	627.3	627.3	627.3	627.3	627.3
2.5°	630.0	628.0	622.7	626.7	626.0
5°	628.0	625.3	620.7	626.0	625.3
7.5°	624.0	622.0	618.0	624.0	623.3
10°	618.0	616.7	614.0	619.3	619.3
12.5°	610.0	610.0	608.0	614.0	614.0
15°	601.3	602.7	600.7	607.3	606.7
17.5°	591.3	592.7	592.0	598.7	598.7
20°	578.7	580.7	582.0	589.3	589.3
22.5°	566.0	568.7	570.0	578.0	578.0
25°	550.7	555.3	557.3	565.3	565.3
27.5°	534.7	540.7	544.7	552.0	553.3
30°	518.7	525.3	530.0	538.0	540.0
32.5°	501.3	508.0	515.3	523.3	526.0
35°	482.7	490.7	498.0	508.7	510.7
37.5°	463.3	472.7	481.3	492.7	495.3
40°	444.0	455.3	465.3	476.0	479.3
42.5°	423.3	434.7	448.0	459.3	462.7
45°	402.7	415.3	429.3	442.0	446.0
47.5°	382.0	395.3	410.7	424.0	428.7
50°	358.7	373.3	391.3	404.7	410.0
52.5°	336.0	352.0	372.0	385.3	391.3
55°	314.7	331.3	351.3	366.7	370.7
57.5°	290.0	308.7	330.7	347.3	351.3
60°	267.3	286.0	309.3	326.0	330.7
62.5°	244.0	264.0	288.0	304.7	309.3
65°	219.3	241.3	266.0	282.7	290.0
67.5°	195.3	217.3	243.3	262.0	268.0
70°	171.3	194.0	222.0	240.7	245.3
72.5°	146.0	170.7	199.3	218.7	225.3
75°	122.0	148.0	177.3	197.3	205.3
77.5°	98.7	126.0	156.7	177.3	182.7
80°	75.3	105.3	136.0	156.7	163.3
82.5°	56.7	84.7	116.7	138.7	144.0
85°	38.0	67.3	99.3	120.7	127.3
87.5°	22.7	52.7	83.3	103.3	110.0
90°	11.3	39.3	70.7	90.0	96.7
92.5°	10.0	35.3	65.3	84.7	91.3
95°	9.3	32.0	61.3	80.7	86.0
97.5°	8.7	29.3	57.3	76.0	82.0
100°	8.0	26.0	54.0	72.0	78.0
102.5°	7.3	23.3	50.0	68.0	74.0
105°	6.7	20.7	46.7	64.0	70.0
107.5°	6.0	18.0	43.3	60.0	66.0
110°	5.3	15.3	40.0	56.0	62.0



TEST NUMBER: P243534

CATALOG NUMBER: S124DR-H575D835-X4F0-XX-UDD-D-W

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	4.7	13.3	36.0	52.0	58.0
115°	4.7	10.7	32.7	48.0	54.0
117.5°	4.0	8.0	29.3	44.0	49.3
120°	4.0	6.0	26.0	40.0	45.3
122.5°	3.3	4.0	22.7	36.7	41.3
125°	2.7	2.0	19.3	32.7	37.3
127.5°	2.7	2.0	16.0	28.7	33.3
130°	2.0	2.0	12.7	24.7	29.3
132.5°	2.0	1.3	9.3	21.3	25.3
135°	1.3	1.3	6.0	17.3	21.3
137.5°	1.3	0.7	4.0	14.0	18.0
140°	1.3	0.7	1.3	10.7	14.0
142.5°	0.7	0.7	0.0	7.3	10.0
145°	0.7	0.0	0.0	4.0	6.7
147.5°	0.7	0.0	0.0	0.7	3.3
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)