

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: P242678

Luminaire Tested: **S124DR-S575D840-X4F0-XX-UDD-D-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242678
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-S575D840-X4F0-XX-UDD-D-W
Description: DEFINE 4 DIRECT RECESSED WITH SATIN DROP DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2207.7 lumens
Efficiency: N/A
Efficacy: 117.4 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

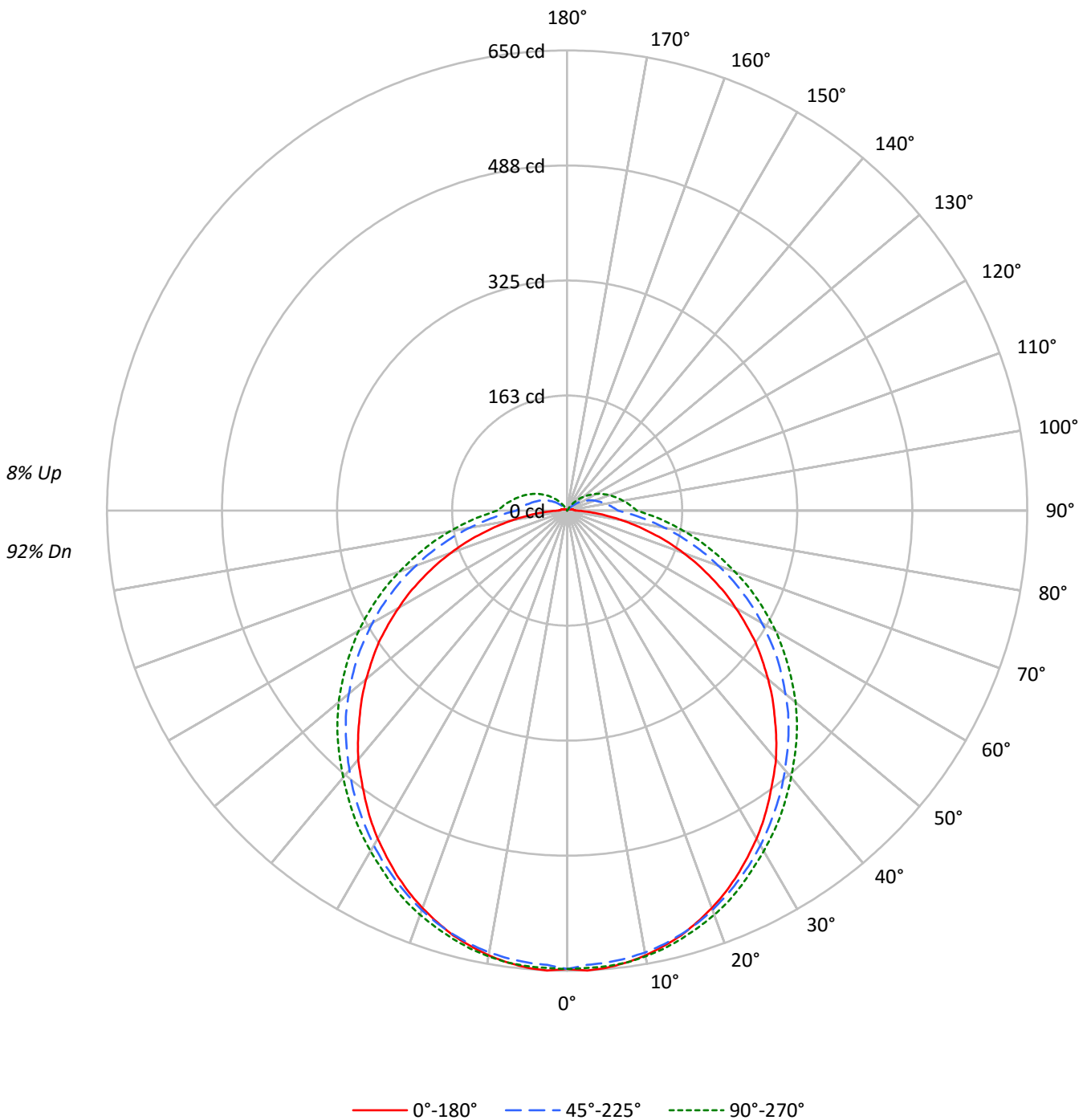
Input Watts (W): 18.8
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P242678

CATALOG NUMBER: S124DR-S575D840-X4F0-XX-UDD-D-W

Luminous Intensity Polar Plot





TEST NUMBER: P242678

CATALOG NUMBER: S124DR-S575D840-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	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°	5756	5756	5756
5°	5773	5619	5634
10°	5738	5521	5513
15°	5686	5410	5375
20°	5608	5287	5239
25°	5520	5150	5092
30°	5425	5014	4940
35°	5317	4875	4807
40°	5232	4743	4668
45°	5105	4619	4548
50°	4996	4477	4421
55°	4884	4343	4273
60°	4710	4173	4136
65°	4520	3990	3969
70°	4290	3782	3774
75°	3965	3551	3594
80°	3604	3322	3413
85°	3144	3110	3288



TEST NUMBER: P242678

CATALOG NUMBER: S124DR-S575D840-X4F0-XX-UDD-D-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	61.3	2.8
10°-20°	175.8	8.0
20°-30°	265.8	12.0
30°-40°	321.6	14.6
40°-50°	339.9	15.4
50°-60°	319.9	14.5
60°-70°	265.5	12.0
70°-80°	186.3	8.4
80°-90°	105.0	4.8
90°-100°	62.5	2.8
100°-110°	46.3	2.1
110°-120°	31.1	1.4
120°-130°	17.5	0.8
130°-140°	7.6	0.3
140°-150°	1.5	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	502.9	22.8
0°-40°	824.5	37.3
0°-60°	1484.4	67.2
0°-90°	2041.2	92.5
90°-120°	139.9	6.3
90°-150°	166.5	7.5
90°-180°	167.0	7.6
0°-180°	2207.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	648	648	648	648	648	
5°	648	646	641	647	646	62
15°	621	622	620	626	626	175
25°	568	573	575	583	584	262
35°	497	506	513	524	526	311
45°	415	428	442	455	458	321
55°	325	340	362	376	381	289
65°	225	248	273	291	297	223
75°	125	152	182	202	209	133
85°	38	69	102	123	130	40
90°	12	41	72	93	99	8
95°	9	33	63	83	89	8
105°	6	21	48	66	72	7
115°	4	11	34	50	55	5
125°	3	2	20	34	38	3
135°	2	2	6	18	22	1
145°	1	0	0	4	7	1
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: P242678

CATALOG NUMBER: S124DR-S575D840-X4F0-XX-UDD-D-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	647.5	647.5	647.5	647.5	647.5
2.5°	650.4	648.2	642.4	647.5	646.8
5°	648.2	646.1	641.0	646.8	646.1
7.5°	643.9	642.4	638.1	644.6	643.9
10°	638.1	637.4	633.7	640.3	639.5
12.5°	630.1	630.1	627.9	633.7	633.7
15°	621.4	622.1	620.0	626.5	625.8
17.5°	609.8	612.0	611.3	617.8	617.1
20°	597.5	599.7	600.4	607.6	607.6
22.5°	583.7	586.6	588.1	595.3	596.8
25°	568.5	572.8	575.0	583.0	583.7
27.5°	551.8	558.3	561.2	568.5	569.2
30°	535.1	540.9	546.0	554.0	555.4
32.5°	517.0	524.3	530.1	539.5	540.9
35°	497.4	506.1	513.4	523.5	525.7
37.5°	477.8	488.0	496.7	506.9	509.0
40°	459.0	468.4	478.6	489.4	492.3
42.5°	437.2	448.1	460.4	472.8	474.9
45°	414.8	428.5	442.3	454.6	458.3
47.5°	393.7	407.5	423.5	435.8	440.1
50°	370.5	386.5	402.4	416.9	421.3
52.5°	347.3	363.3	382.1	396.6	401.0
55°	324.8	340.1	361.8	376.3	380.7
57.5°	299.5	318.3	339.4	356.8	360.4
60°	274.8	293.7	317.6	334.3	340.1
62.5°	250.9	271.9	295.8	312.5	318.3
65°	224.8	248.0	272.6	290.8	296.6
67.5°	200.1	224.8	250.9	269.0	274.8
70°	174.8	199.4	227.0	246.5	251.6
72.5°	150.1	175.5	205.2	224.1	229.9
75°	124.7	151.5	182.0	202.3	208.8
77.5°	100.8	129.1	161.0	181.3	188.5
80°	79.0	108.0	139.9	161.7	167.5
82.5°	57.3	87.7	119.6	142.1	148.6
85°	38.4	68.9	101.5	123.3	130.5
87.5°	23.9	53.7	85.6	106.6	113.1
90°	11.6	40.6	71.8	92.8	98.6
92.5°	10.9	36.3	67.4	87.7	93.5
95°	9.4	33.4	63.1	82.7	89.2
97.5°	8.7	29.7	59.5	78.3	84.8
100°	8.0	26.8	55.1	74.7	79.8
102.5°	8.0	23.9	51.5	70.3	76.1
105°	6.5	21.0	47.9	66.0	71.8
107.5°	6.5	18.9	44.2	62.4	67.4
110°	5.8	16.0	41.3	58.0	63.8



TEST NUMBER: P242678

CATALOG NUMBER: S124DR-S575D840-X4F0-XX-UDD-D-W

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	5.1	13.8	37.7	53.7	59.5
115°	4.4	10.9	34.1	50.0	55.1
117.5°	4.4	8.7	30.5	45.7	51.5
120°	3.6	5.8	26.8	41.3	47.1
122.5°	3.6	3.6	23.2	37.7	42.8
125°	2.9	2.2	20.3	34.1	38.4
127.5°	2.9	2.2	16.7	29.7	34.8
130°	2.2	1.5	13.1	26.1	30.5
132.5°	2.2	1.5	10.2	22.5	26.8
135°	1.5	1.5	6.5	18.1	22.5
137.5°	1.5	0.7	3.6	14.5	18.1
140°	1.5	0.7	1.5	10.9	14.5
142.5°	0.7	0.7	0.0	8.0	10.9
145°	0.7	0.0	0.0	4.4	7.3
147.5°	0.7	0.0	0.0	0.7	3.6
150°	0.7	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)