

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: P243524

Luminaire Tested: **S124DR-H575D927-X4F0-XX-UDD-D-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P243524
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-H575D927-X4F0-XX-UDD-D-W
Description: DEFINE 4 DIRECT RECESSED WITH SATIN DROP DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 2700K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1698.8 lumens
Efficiency: N/A
Efficacy: 98.8 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

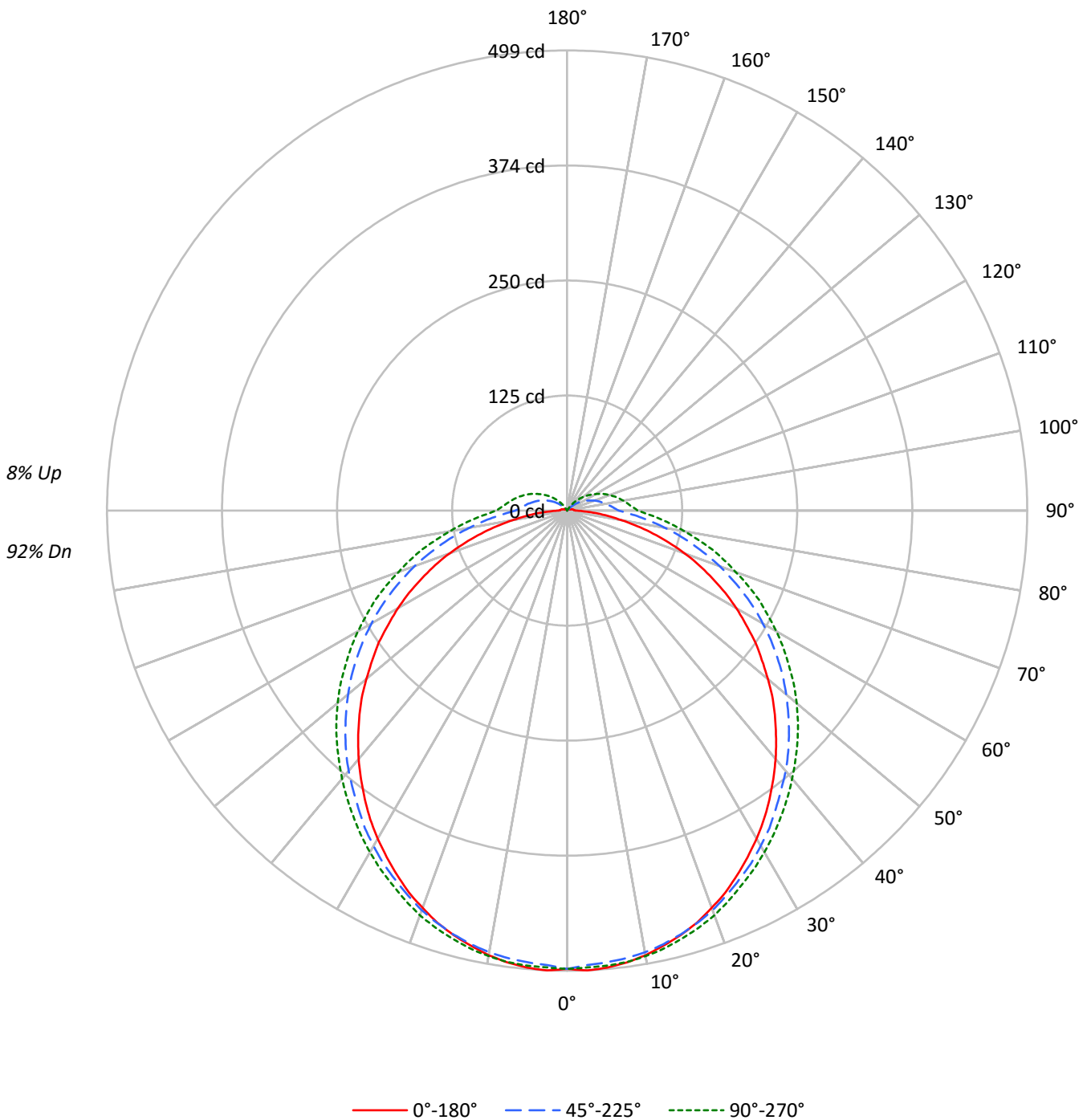
Input Watts (W): 17.2
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	4418	4418	4418
5°	4431	4311	4320
10°	4402	4238	4229
15°	4359	4152	4128
20°	4303	4061	4026
25°	4236	3954	3907
30°	4166	3856	3805
35°	4088	3746	3699
40°	4009	3653	3600
45°	3926	3552	3506
50°	3831	3449	3408
55°	3748	3341	3295
60°	3630	3221	3186
65°	3494	3084	3074
70°	3330	2931	2916
75°	3071	2741	2801
80°	2724	2558	2637
85°	2464	2411	2542



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	47.1	2.8
10°-20°	134.9	7.9
20°-30°	204.2	12.0
30°-40°	247.3	14.6
40°-50°	261.5	15.4
50°-60°	246.4	14.5
60°-70°	204.8	12.1
70°-80°	143.9	8.5
80°-90°	81.1	4.8
90°-100°	48.1	2.8
100°-110°	35.6	2.1
110°-120°	23.8	1.4
120°-130°	13.4	0.8
130°-140°	5.7	0.3
140°-150°	1.1	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	386.2	22.7
0°-40°	633.5	37.3
0°-60°	1141.4	67.2
0°-90°	1571.1	92.5
90°-120°	107.5	6.3
90°-150°	127.7	7.5
90°-180°	128.0	7.5
0°-180°	1698.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	497	497	497	497	497	
5°	498	495	492	496	495	47
15°	476	477	476	481	481	134
25°	436	440	442	448	448	201
35°	382	389	394	403	404	239
45°	319	329	340	350	353	246
55°	249	262	278	290	294	222
65°	174	191	211	224	230	172
75°	97	117	140	156	163	102
85°	30	53	79	96	101	31
90°	9	31	56	71	77	6
95°	7	25	49	64	68	6
105°	5	16	37	51	56	6
115°	4	8	26	38	43	4
125°	2	2	15	26	30	2
135°	1	1	5	14	17	1
145°	0	0	0	3	5	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



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	497.0	497.0	497.0	497.0	497.0
2.5°	499.1	497.5	493.3	496.4	495.9
5°	497.5	495.4	491.7	495.9	495.4
7.5°	494.3	492.7	489.6	494.3	493.8
10°	489.6	488.5	486.4	490.6	490.6
12.5°	483.2	483.2	481.7	486.4	486.4
15°	476.4	477.4	475.8	481.1	480.6
17.5°	468.5	469.5	469.0	474.3	474.3
20°	458.4	460.0	461.1	466.9	466.9
22.5°	448.4	450.5	451.6	457.9	457.9
25°	436.2	439.9	441.5	447.9	447.9
27.5°	423.6	428.3	431.5	437.3	438.4
30°	410.9	416.2	419.9	426.2	427.8
32.5°	397.2	402.4	408.2	414.6	416.7
35°	382.4	388.7	394.5	403.0	404.5
37.5°	367.1	374.4	381.3	390.3	392.4
40°	351.7	360.7	368.6	377.1	379.7
42.5°	335.4	344.3	354.9	363.9	366.5
45°	319.0	329.0	340.1	350.2	353.3
47.5°	302.6	313.2	325.3	335.9	339.6
50°	284.1	295.8	310.0	320.6	324.8
52.5°	266.2	278.9	294.7	305.3	310.0
55°	249.3	262.5	278.3	290.5	293.6
57.5°	229.7	244.5	262.0	275.2	278.3
60°	211.8	226.6	245.1	258.3	262.0
62.5°	193.3	209.1	228.2	241.4	245.1
65°	173.8	191.2	210.7	223.9	229.7
67.5°	154.7	172.2	192.8	207.6	212.3
70°	135.7	153.7	175.9	190.7	194.4
72.5°	115.7	135.2	157.9	173.2	178.5
75°	96.6	117.2	140.5	156.3	162.7
77.5°	78.2	99.8	124.1	140.5	144.7
80°	59.7	83.4	107.7	124.1	129.4
82.5°	44.9	67.1	92.4	109.9	114.1
85°	30.1	53.3	78.7	95.6	100.9
87.5°	18.0	41.7	66.0	81.9	87.1
90°	9.0	31.2	56.0	71.3	76.6
92.5°	7.9	28.0	51.8	67.1	72.4
95°	7.4	25.4	48.6	63.9	68.1
97.5°	6.9	23.2	45.4	60.2	65.0
100°	6.3	20.6	42.8	57.0	61.8
102.5°	5.8	18.5	39.6	53.9	58.6
105°	5.3	16.4	37.0	50.7	55.5
107.5°	4.8	14.3	34.3	47.5	52.3
110°	4.2	12.1	31.7	44.4	49.1



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	3.7	10.6	28.5	41.2	45.9
115°	3.7	8.5	25.9	38.0	42.8
117.5°	3.2	6.3	23.2	34.9	39.1
120°	3.2	4.8	20.6	31.7	35.9
122.5°	2.6	3.2	18.0	29.0	32.7
125°	2.1	1.6	15.3	25.9	29.6
127.5°	2.1	1.6	12.7	22.7	26.4
130°	1.6	1.6	10.0	19.5	23.2
132.5°	1.6	1.1	7.4	16.9	20.1
135°	1.1	1.1	4.8	13.7	16.9
137.5°	1.1	0.5	3.2	11.1	14.3
140°	1.1	0.5	1.1	8.5	11.1
142.5°	0.5	0.5	0.0	5.8	7.9
145°	0.5	0.0	0.0	3.2	5.3
147.5°	0.5	0.0	0.0	0.5	2.6
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)