

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: P242664

Luminaire Tested: **S124DR-S575D927-X4F0-XX-UDD-D-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242664
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-S575D927-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: 1731.8 lumens
Efficiency: N/A
Efficacy: 92.1 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

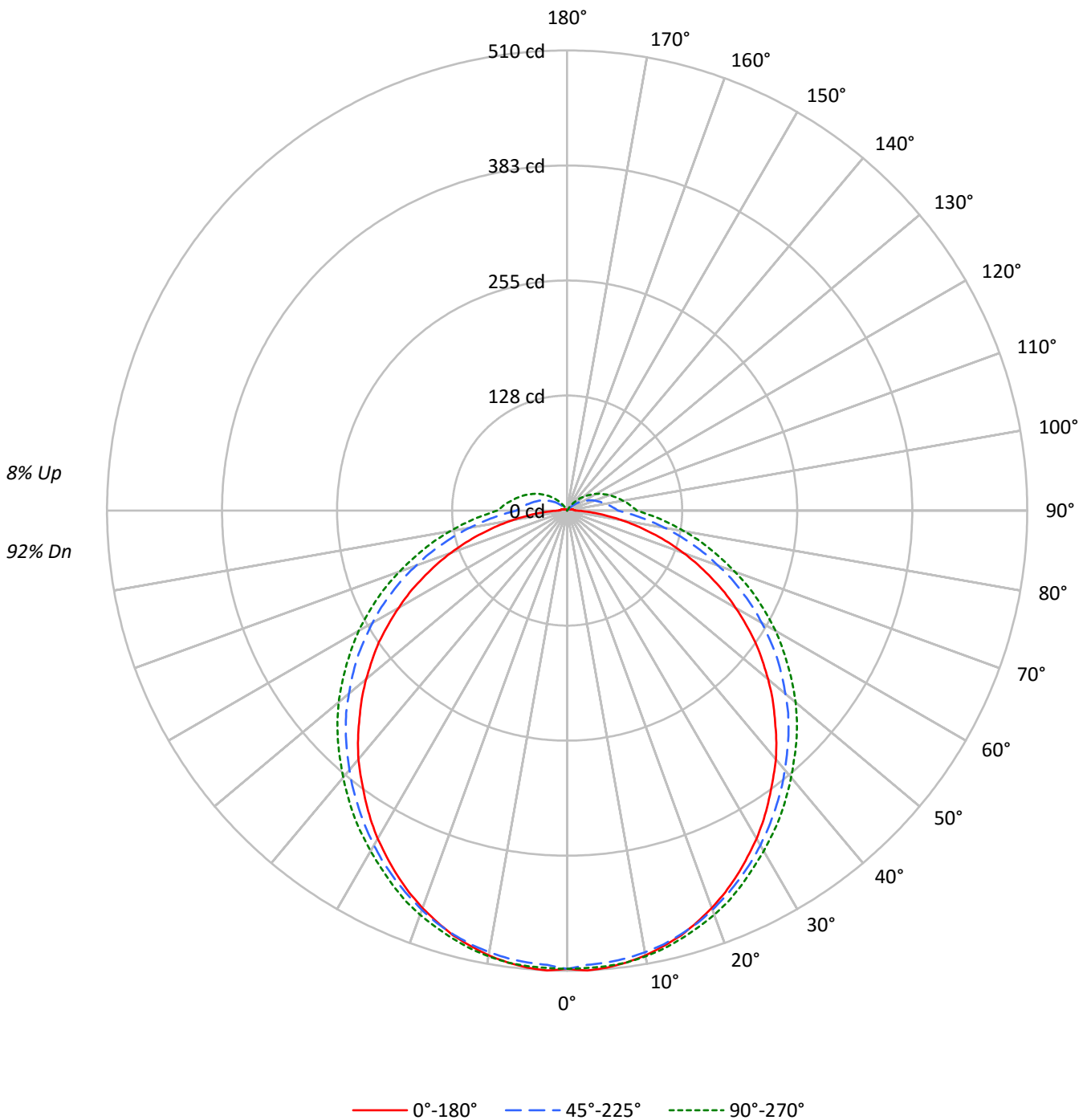
Input Watts (W): 18.8
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	4515	4515	4515
5°	4529	4408	4419
10°	4501	4331	4325
15°	4461	4243	4216
20°	4399	4148	4110
25°	4330	4040	3994
30°	4256	3933	3875
35°	4171	3824	3771
40°	4104	3720	3662
45°	4004	3624	3568
50°	3920	3513	3468
55°	3831	3407	3351
60°	3695	3273	3245
65°	3545	3131	3112
70°	3364	2966	2961
75°	3109	2786	2820
80°	2829	2607	2677
85°	2464	2439	2580



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	48.1	2.8
10°-20°	137.9	8.0
20°-30°	208.5	12.0
30°-40°	252.2	14.6
40°-50°	266.7	15.4
50°-60°	251.0	14.5
60°-70°	208.3	12.0
70°-80°	146.2	8.4
80°-90°	82.4	4.8
90°-100°	49.0	2.8
100°-110°	36.3	2.1
110°-120°	24.4	1.4
120°-130°	13.7	0.8
130°-140°	5.9	0.3
140°-150°	1.2	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	394.5	22.8
0°-40°	646.8	37.3
0°-60°	1164.4	67.2
0°-90°	1601.2	92.5
90°-120°	109.7	6.3
90°-150°	130.6	7.5
90°-180°	131.0	7.6
0°-180°	1731.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	508	508	508	508	508	
5°	508	507	503	507	507	48
15°	488	488	486	491	491	137
25°	446	449	451	457	458	205
35°	390	397	403	411	412	244
45°	325	336	347	357	360	251
55°	255	267	284	295	299	227
65°	176	194	214	228	233	175
75°	98	119	143	159	164	104
85°	30	54	80	97	102	31
90°	9	32	56	73	77	6
95°	7	26	50	65	70	6
105°	5	16	38	52	56	6
115°	3	8	27	39	43	4
125°	2	2	16	27	30	2
135°	1	1	5	14	18	1
145°	1	0	0	3	6	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°	507.9	507.9	507.9	507.9	507.9
2.5°	510.2	508.5	504.0	507.9	507.4
5°	508.5	506.8	502.8	507.4	506.8
7.5°	505.1	504.0	500.6	505.7	505.1
10°	500.6	500.0	497.1	502.3	501.7
12.5°	494.3	494.3	492.6	497.1	497.1
15°	487.5	488.0	486.3	491.4	490.9
17.5°	478.4	480.1	479.5	484.6	484.1
20°	468.7	470.4	471.0	476.7	476.7
22.5°	457.9	460.2	461.3	467.0	468.1
25°	445.9	449.4	451.1	457.3	457.9
27.5°	432.9	438.0	440.3	445.9	446.5
30°	419.8	424.3	428.3	434.6	435.7
32.5°	405.6	411.2	415.8	423.2	424.3
35°	390.2	397.0	402.7	410.7	412.4
37.5°	374.8	382.8	389.6	397.6	399.3
40°	360.1	367.4	375.4	383.9	386.2
42.5°	343.0	351.5	361.2	370.9	372.6
45°	325.4	336.2	347.0	356.6	359.5
47.5°	308.9	319.7	332.2	341.9	345.3
50°	290.7	303.2	315.7	327.1	330.5
52.5°	272.5	285.0	299.8	311.1	314.6
55°	254.8	266.8	283.8	295.2	298.6
57.5°	234.9	249.7	266.2	279.9	282.7
60°	215.6	230.4	249.1	262.2	266.8
62.5°	196.8	213.3	232.1	245.2	249.7
65°	176.3	194.5	213.9	228.1	232.6
67.5°	157.0	176.3	196.8	211.0	215.6
70°	137.1	156.4	178.0	193.4	197.4
72.5°	117.7	137.7	161.0	175.8	180.3
75°	97.8	118.9	142.8	158.7	163.8
77.5°	79.1	101.2	126.3	142.2	147.9
80°	62.0	84.8	109.8	126.8	131.4
82.5°	44.9	68.8	93.9	111.5	116.6
85°	30.1	54.0	79.6	96.7	102.4
87.5°	18.8	42.1	67.1	83.6	88.7
90°	9.1	31.9	56.3	72.8	77.4
92.5°	8.5	28.4	52.9	68.8	73.4
95°	7.4	26.2	49.5	64.8	70.0
97.5°	6.8	23.3	46.6	61.4	66.6
100°	6.3	21.0	43.2	58.6	62.6
102.5°	6.3	18.8	40.4	55.2	59.7
105°	5.1	16.5	37.5	51.8	56.3
107.5°	5.1	14.8	34.7	48.9	52.9
110°	4.6	12.5	32.4	45.5	50.1



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	4.0	10.8	29.6	42.1	46.6
115°	3.4	8.5	26.7	39.2	43.2
117.5°	3.4	6.8	23.9	35.8	40.4
120°	2.8	4.6	21.0	32.4	37.0
122.5°	2.8	2.8	18.2	29.6	33.6
125°	2.3	1.7	15.9	26.7	30.1
127.5°	2.3	1.7	13.1	23.3	27.3
130°	1.7	1.1	10.2	20.5	23.9
132.5°	1.7	1.1	8.0	17.6	21.0
135°	1.1	1.1	5.1	14.2	17.6
137.5°	1.1	0.6	2.8	11.4	14.2
140°	1.1	0.6	1.1	8.5	11.4
142.5°	0.6	0.6	0.0	6.3	8.5
145°	0.6	0.0	0.0	3.4	5.7
147.5°	0.6	0.0	0.0	0.6	2.8
150°	0.6	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)