

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: P243525

Luminaire Tested: **S124DR-H795D927-X4F0-XX-UDD-D-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P243525
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-H795D927-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: 2379.1 lumens
Efficiency: N/A
Efficacy: 100.8 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

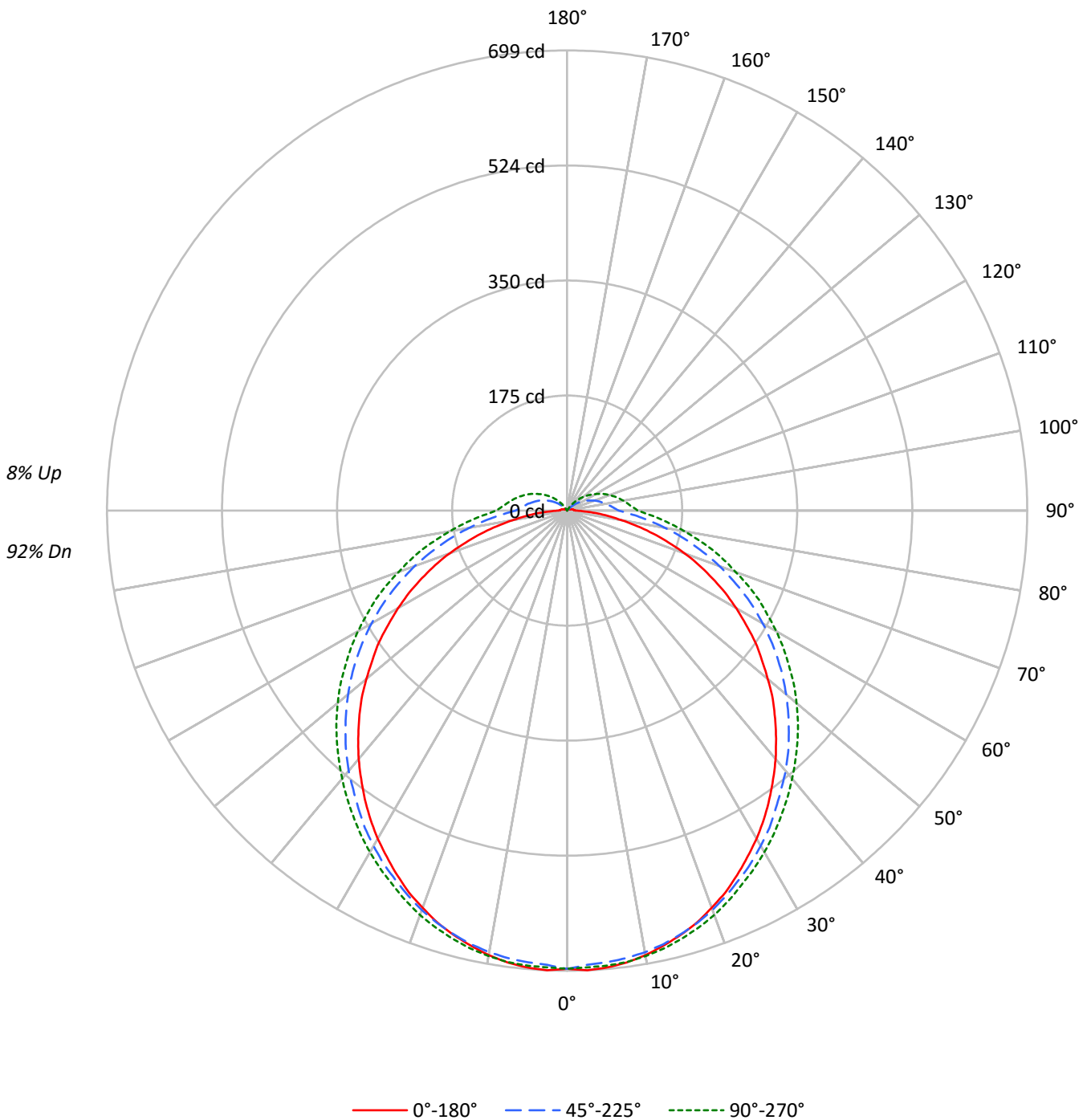
Input Watts (W): 23.6
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	6187	6187	6187
5°	6205	6037	6050
10°	6166	5935	5923
15°	6105	5815	5781
20°	6026	5686	5637
25°	5932	5538	5471
30°	5833	5400	5329
35°	5725	5247	5181
40°	5615	5116	5043
45°	5497	4974	4911
50°	5365	4831	4774
55°	5249	4679	4615
60°	5084	4510	4462
65°	4892	4319	4305
70°	4665	4104	4083
75°	4305	3837	3921
80°	3814	3583	3692
85°	3455	3376	3560



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	65.9	2.8
10°-20°	188.9	7.9
20°-30°	286.0	12.0
30°-40°	346.3	14.6
40°-50°	366.3	15.4
50°-60°	345.1	14.5
60°-70°	286.7	12.1
70°-80°	201.5	8.5
80°-90°	113.5	4.8
90°-100°	67.4	2.8
100°-110°	49.9	2.1
110°-120°	33.3	1.4
120°-130°	18.8	0.8
130°-140°	8.0	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°	540.8	22.7
0°-40°	887.1	37.3
0°-60°	1598.5	67.2
0°-90°	2200.3	92.5
90°-120°	150.5	6.3
90°-150°	178.8	7.5
90°-180°	179.0	7.5
0°-180°	2379.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	696	696	696	696	696	
5°	697	694	689	694	694	66
15°	667	669	666	674	673	188
25°	611	616	618	627	627	282
35°	536	544	552	564	567	335
45°	447	461	476	490	495	345
55°	349	368	390	407	411	311
65°	243	268	295	314	322	241
75°	135	164	197	219	228	143
85°	42	75	110	134	141	43
90°	13	44	78	100	107	8
95°	10	36	68	90	95	8
105°	7	23	52	71	78	8
115°	5	12	36	53	60	5
125°	3	2	21	36	41	3
135°	2	2	7	19	24	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



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	696.0	696.0	696.0	696.0	696.0
2.5°	699.0	696.7	690.8	695.3	694.5
5°	696.7	693.8	688.6	694.5	693.8
7.5°	692.3	690.1	685.7	692.3	691.6
10°	685.7	684.2	681.2	687.1	687.1
12.5°	676.8	676.8	674.6	681.2	681.2
15°	667.2	668.6	666.4	673.8	673.1
17.5°	656.1	657.5	656.8	664.2	664.2
20°	642.0	644.2	645.7	653.8	653.8
22.5°	628.0	630.9	632.4	641.3	641.3
25°	610.9	616.1	618.3	627.2	627.2
27.5°	593.2	599.9	604.3	612.4	613.9
30°	575.4	582.8	588.0	596.9	599.1
32.5°	556.2	563.6	571.7	580.6	583.6
35°	535.5	544.4	552.5	564.3	566.6
37.5°	514.1	524.4	534.0	546.6	549.6
40°	492.6	505.2	516.3	528.1	531.8
42.5°	469.7	482.2	497.0	509.6	513.3
45°	446.7	460.8	476.3	490.4	494.8
47.5°	423.8	438.6	455.6	470.4	475.6
50°	397.9	414.2	434.2	449.0	454.9
52.5°	372.8	390.5	412.7	427.5	434.2
55°	349.1	367.6	389.8	406.8	411.2
57.5°	321.7	342.5	366.9	385.4	389.8
60°	296.6	317.3	343.2	361.7	366.9
62.5°	270.7	292.9	319.5	338.0	343.2
65°	243.3	267.8	295.1	313.6	321.7
67.5°	216.7	241.1	270.0	290.7	297.3
70°	190.1	215.2	246.3	267.0	272.2
72.5°	162.0	189.3	221.2	242.6	250.0
75°	135.4	164.2	196.7	218.9	227.8
77.5°	109.5	139.8	173.8	196.7	202.7
80°	83.6	116.9	150.9	173.8	181.2
82.5°	62.9	93.9	129.4	153.8	159.8
85°	42.2	74.7	110.2	133.9	141.3
87.5°	25.1	58.4	92.5	114.6	122.0
90°	12.6	43.6	78.4	99.9	107.2
92.5°	11.1	39.2	72.5	93.9	101.3
95°	10.4	35.5	68.0	89.5	95.4
97.5°	9.6	32.5	63.6	84.3	91.0
100°	8.9	28.8	59.9	79.9	86.5
102.5°	8.1	25.9	55.5	75.4	82.1
105°	7.4	22.9	51.8	71.0	77.7
107.5°	6.7	20.0	48.1	66.6	73.2
110°	5.9	17.0	44.4	62.1	68.8



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	5.2	14.8	39.9	57.7	64.3
115°	5.2	11.8	36.2	53.3	59.9
117.5°	4.4	8.9	32.5	48.8	54.7
120°	4.4	6.7	28.8	44.4	50.3
122.5°	3.7	4.4	25.1	40.7	45.9
125°	3.0	2.2	21.4	36.2	41.4
127.5°	3.0	2.2	17.8	31.8	37.0
130°	2.2	2.2	14.1	27.4	32.5
132.5°	2.2	1.5	10.4	23.7	28.1
135°	1.5	1.5	6.7	19.2	23.7
137.5°	1.5	0.7	4.4	15.5	20.0
140°	1.5	0.7	1.5	11.8	15.5
142.5°	0.7	0.7	0.0	8.1	11.1
145°	0.7	0.0	0.0	4.4	7.4
147.5°	0.7	0.0	0.0	0.7	3.7
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)