

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: P242665

Luminaire Tested: **S124DR-S795D927-X4F0-XX-UDD-D-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242665
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-S795D927-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: 2411.9 lumens
Efficiency: N/A
Efficacy: 91.4 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

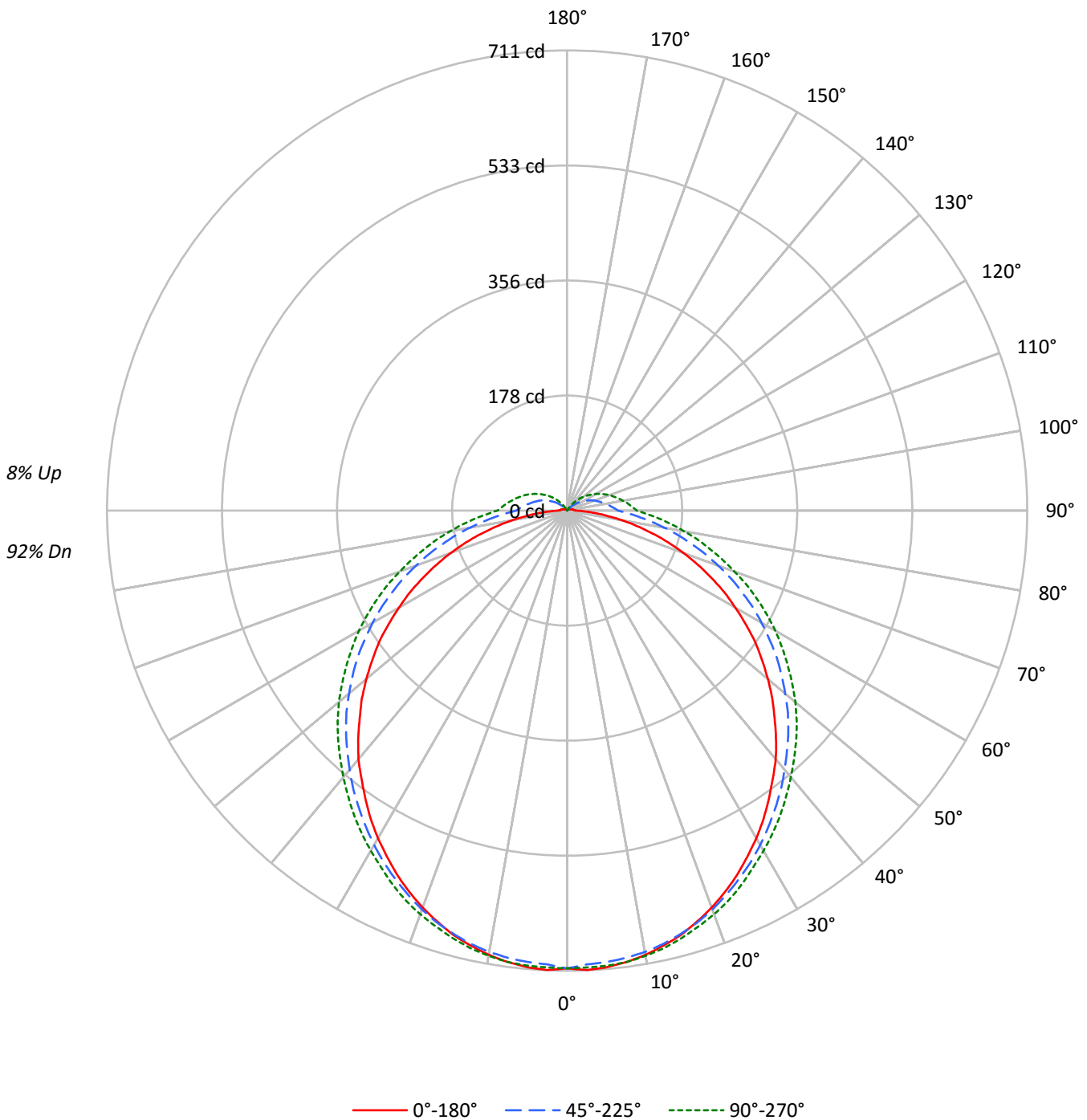
Input Watts (W): 26.4
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	6288	6288	6288
5°	6307	6139	6154
10°	6268	6033	6023
15°	6212	5910	5872
20°	6127	5776	5724
25°	6031	5627	5563
30°	5927	5478	5397
35°	5809	5327	5251
40°	5716	5181	5100
45°	5576	5046	4969
50°	5458	4892	4830
55°	5336	4745	4668
60°	5145	4560	4518
65°	4938	4360	4335
70°	4685	4132	4123
75°	4333	3878	3926
80°	3937	3631	3729
85°	3438	3398	3593



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	67.0	2.8
10°-20°	192.0	8.0
20°-30°	290.4	12.0
30°-40°	351.3	14.6
40°-50°	371.4	15.4
50°-60°	349.5	14.5
60°-70°	290.0	12.0
70°-80°	203.5	8.4
80°-90°	114.8	4.8
90°-100°	68.3	2.8
100°-110°	50.6	2.1
110°-120°	34.0	1.4
120°-130°	19.1	0.8
130°-140°	8.3	0.3
140°-150°	1.6	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	549.5	22.8
0°-40°	900.8	37.3
0°-60°	1621.7	67.2
0°-90°	2230.0	92.5
90°-120°	152.9	6.3
90°-150°	181.9	7.5
90°-180°	182.0	7.5
0°-180°	2411.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	707	707	707	707	707	
5°	708	706	700	707	706	67
15°	679	680	677	684	684	191
25°	621	626	628	637	638	286
35°	543	553	561	572	574	340
45°	453	468	483	497	501	350
55°	355	372	395	411	416	316
65°	246	271	298	318	324	243
75°	136	166	199	221	228	145
85°	42	75	111	135	143	44
90°	13	44	78	101	108	9
95°	10	36	69	90	97	8
105°	7	23	52	72	78	8
115°	5	12	37	55	60	5
125°	3	2	22	37	42	3
135°	2	2	7	20	25	1
145°	1	0	0	5	8	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



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	707.4	707.4	707.4	707.4	707.4
2.5°	710.6	708.2	701.9	707.4	706.6
5°	708.2	705.8	700.3	706.6	705.8
7.5°	703.5	701.9	697.1	704.2	703.5
10°	697.1	696.3	692.4	699.5	698.7
12.5°	688.4	688.4	686.0	692.4	692.4
15°	678.9	679.7	677.3	684.4	683.7
17.5°	666.2	668.6	667.8	674.9	674.1
20°	652.8	655.1	655.9	663.8	663.8
22.5°	637.7	640.9	642.5	650.4	652.0
25°	621.1	625.8	628.2	636.9	637.7
27.5°	602.9	610.0	613.1	621.1	621.9
30°	584.6	591.0	596.5	605.2	606.8
32.5°	564.8	572.7	579.1	589.4	591.0
35°	543.4	552.9	560.9	572.0	574.3
37.5°	522.0	533.1	542.6	553.7	556.1
40°	501.5	511.7	522.8	534.7	537.9
42.5°	477.7	489.6	503.0	516.5	518.9
45°	453.1	468.2	483.2	496.7	500.7
47.5°	430.2	445.2	462.6	476.1	480.9
50°	404.8	422.2	439.7	455.5	460.3
52.5°	379.5	396.9	417.5	433.3	438.1
55°	354.9	371.5	395.3	411.1	415.9
57.5°	327.2	347.8	370.7	389.8	393.7
60°	300.2	320.8	347.0	365.2	371.5
62.5°	274.1	297.1	323.2	341.4	347.8
65°	245.6	270.9	297.9	317.7	324.0
67.5°	218.6	245.6	274.1	293.9	300.2
70°	190.9	217.8	248.0	269.3	274.9
72.5°	164.0	191.7	224.2	244.8	251.1
75°	136.3	165.6	198.8	221.0	228.1
77.5°	110.1	141.0	175.9	198.0	206.0
80°	86.3	118.0	152.9	176.7	183.0
82.5°	62.6	95.9	130.7	155.3	162.4
85°	42.0	75.3	110.9	134.7	142.6
87.5°	26.1	58.6	93.5	116.5	123.6
90°	12.7	44.4	78.4	101.4	107.7
92.5°	11.9	39.6	73.7	95.9	102.2
95°	10.3	36.4	68.9	90.3	97.4
97.5°	9.5	32.5	65.0	85.6	92.7
100°	8.7	29.3	60.2	81.6	87.1
102.5°	8.7	26.1	56.2	76.8	83.2
105°	7.1	23.0	52.3	72.1	78.4
107.5°	7.1	20.6	48.3	68.1	73.7
110°	6.3	17.4	45.2	63.4	69.7



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	5.5	15.1	41.2	58.6	65.0
115°	4.8	11.9	37.2	54.7	60.2
117.5°	4.8	9.5	33.3	49.9	56.2
120°	4.0	6.3	29.3	45.2	51.5
122.5°	4.0	4.0	25.3	41.2	46.7
125°	3.2	2.4	22.2	37.2	42.0
127.5°	3.2	2.4	18.2	32.5	38.0
130°	2.4	1.6	14.3	28.5	33.3
132.5°	2.4	1.6	11.1	24.6	29.3
135°	1.6	1.6	7.1	19.8	24.6
137.5°	1.6	0.8	4.0	15.8	19.8
140°	1.6	0.8	1.6	11.9	15.8
142.5°	0.8	0.8	0.0	8.7	11.9
145°	0.8	0.0	0.0	4.8	7.9
147.5°	0.8	0.0	0.0	0.8	4.0
150°	0.8	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)