

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: P242689

Luminaire Tested: **S124DR-S795D935-X4F0-XX-UDD-D-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242689
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-S795D935-X4F0-XX-UDD-D-W
Description: DEFINE 4 DIRECT RECESSED WITH SATIN DROP DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2621.4 lumens
Efficiency: N/A
Efficacy: 99.3 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

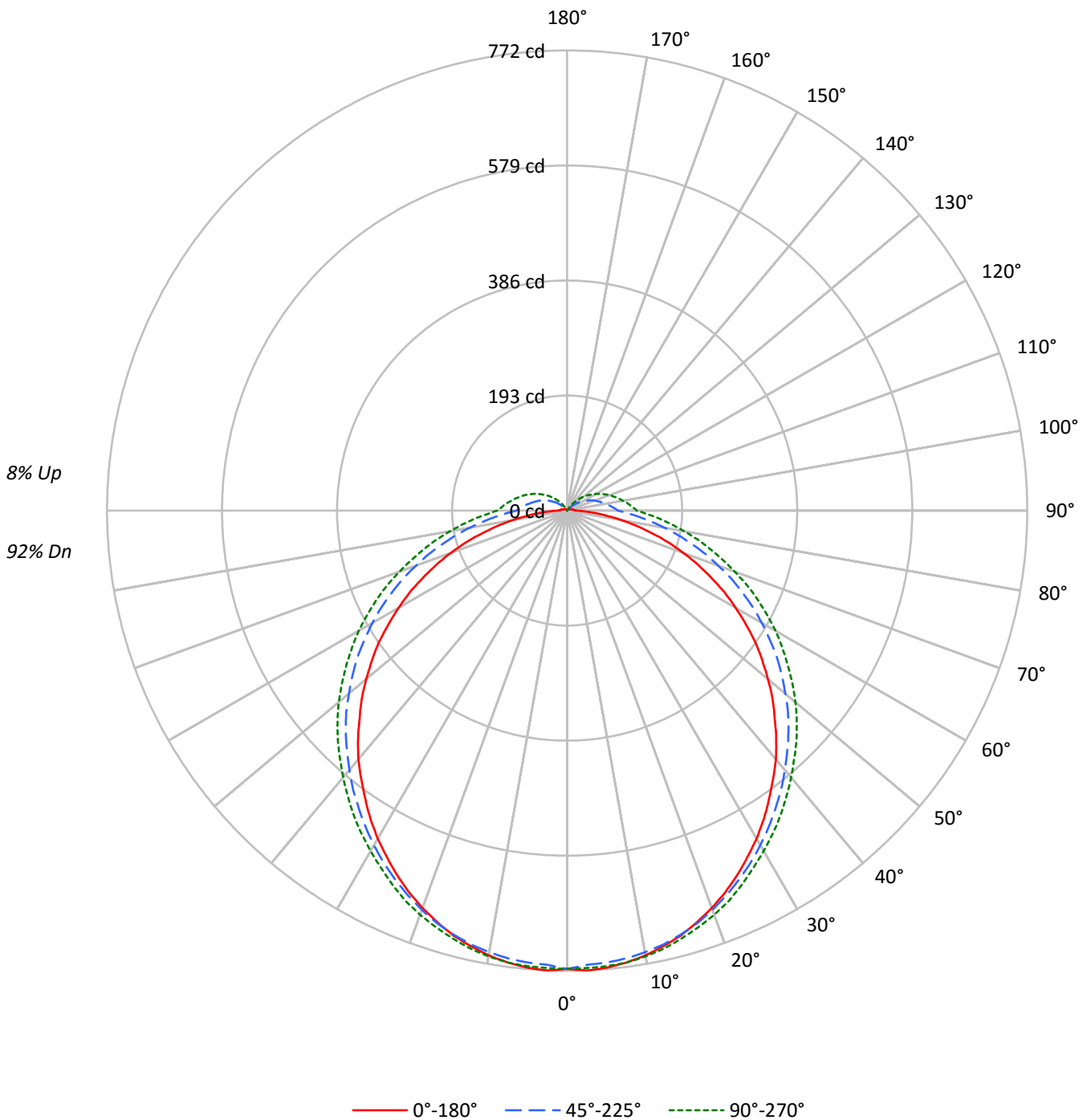
Input Watts (W): 26.4
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	6835	6835	6835
5°	6855	6672	6690
10°	6813	6557	6547
15°	6752	6424	6381
20°	6659	6278	6221
25°	6555	6116	6046
30°	6442	5954	5866
35°	6314	5789	5708
40°	6212	5632	5543
45°	6061	5485	5401
50°	5933	5317	5249
55°	5799	5157	5073
60°	5593	4955	4911
65°	5366	4738	4711
70°	5092	4490	4482
75°	4708	4216	4269
80°	4280	3947	4053
85°	3733	3692	3905



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	72.8	2.8
10°-20°	208.7	8.0
20°-30°	315.6	12.0
30°-40°	381.8	14.6
40°-50°	403.7	15.4
50°-60°	379.9	14.5
60°-70°	315.2	12.0
70°-80°	221.2	8.4
80°-90°	124.7	4.8
90°-100°	74.3	2.8
100°-110°	55.0	2.1
110°-120°	36.9	1.4
120°-130°	20.8	0.8
130°-140°	9.0	0.3
140°-150°	1.8	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	597.2	22.8
0°-40°	979.0	37.3
0°-60°	1762.6	67.2
0°-90°	2423.7	92.5
90°-120°	166.1	6.3
90°-150°	197.7	7.5
90°-180°	198.0	7.6
0°-180°	2621.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	769	769	769	769	769	
5°	770	767	761	768	767	73
15°	738	739	736	744	743	208
25°	675	680	683	692	693	311
35°	591	601	610	622	624	370
45°	492	509	525	540	544	381
55°	386	404	430	447	452	344
65°	267	294	324	345	352	265
75°	148	180	216	240	248	157
85°	46	82	120	146	155	48
90°	14	48	85	110	117	9
95°	11	40	75	98	106	9
105°	8	25	57	78	85	9
115°	5	13	40	59	65	5
125°	3	3	24	40	46	3
135°	2	2	8	22	27	2
145°	1	0	0	5	9	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°	768.9	768.9	768.9	768.9	768.9
2.5°	772.3	769.7	762.8	768.9	768.0
5°	769.7	767.2	761.1	768.0	767.2
7.5°	764.6	762.8	757.7	765.4	764.6
10°	757.7	756.8	752.5	760.3	759.4
12.5°	748.2	748.2	745.6	752.5	752.5
15°	737.9	738.7	736.2	743.9	743.0
17.5°	724.1	726.7	725.8	733.6	732.7
20°	709.5	712.0	712.9	721.5	721.5
22.5°	693.1	696.5	698.3	706.9	708.6
25°	675.0	680.2	682.8	692.2	693.1
27.5°	655.2	663.0	666.4	675.0	675.9
30°	635.4	642.3	648.3	657.8	659.5
32.5°	613.9	622.5	629.4	640.6	642.3
35°	590.6	601.0	609.6	621.6	624.2
37.5°	567.4	579.5	589.8	601.8	604.4
40°	545.0	556.2	568.3	581.2	584.6
42.5°	519.2	532.1	546.7	561.4	564.0
45°	492.5	508.9	525.2	539.8	544.2
47.5°	467.5	483.9	502.8	517.5	522.6
50°	440.0	458.9	477.9	495.1	500.2
52.5°	412.4	431.4	453.7	471.0	476.1
55°	385.7	403.8	429.6	446.9	452.0
57.5°	355.6	378.0	402.9	423.6	427.9
60°	326.3	348.7	377.1	396.9	403.8
62.5°	297.9	322.9	351.3	371.1	378.0
65°	266.9	294.5	323.7	345.3	352.1
67.5°	237.6	266.9	297.9	319.4	326.3
70°	207.5	236.8	269.5	292.7	298.8
72.5°	178.2	208.4	243.7	266.0	272.9
75°	148.1	179.9	216.1	240.2	248.0
77.5°	119.7	153.3	191.1	215.2	223.9
80°	93.8	128.3	166.2	192.0	198.9
82.5°	68.0	104.2	142.1	168.8	176.5
85°	45.6	81.8	120.5	146.4	155.0
87.5°	28.4	63.7	101.6	126.6	134.3
90°	13.8	48.2	85.2	110.2	117.1
92.5°	12.9	43.0	80.1	104.2	111.1
95°	11.2	39.6	74.9	98.2	105.9
97.5°	10.3	35.3	70.6	93.0	100.7
100°	9.5	31.9	65.4	88.7	94.7
102.5°	9.5	28.4	61.1	83.5	90.4
105°	7.7	25.0	56.8	78.4	85.2
107.5°	7.7	22.4	52.5	74.0	80.1
110°	6.9	18.9	49.1	68.9	75.8



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	6.0	16.4	44.8	63.7	70.6
115°	5.2	12.9	40.5	59.4	65.4
117.5°	5.2	10.3	36.2	54.2	61.1
120°	4.3	6.9	31.9	49.1	56.0
122.5°	4.3	4.3	27.6	44.8	50.8
125°	3.4	2.6	24.1	40.5	45.6
127.5°	3.4	2.6	19.8	35.3	41.3
130°	2.6	1.7	15.5	31.0	36.2
132.5°	2.6	1.7	12.1	26.7	31.9
135°	1.7	1.7	7.7	21.5	26.7
137.5°	1.7	0.9	4.3	17.2	21.5
140°	1.7	0.9	1.7	12.9	17.2
142.5°	0.9	0.9	0.0	9.5	12.9
145°	0.9	0.0	0.0	5.2	8.6
147.5°	0.9	0.0	0.0	0.9	4.3
150°	0.9	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)