

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: P243530

Luminaire Tested: **S124DR-H795D830-X4F0-XX-UDD-D-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P243530
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-H795D830-X4F0-XX-UDD-D-W
Description: DEFINE 4 DIRECT RECESSED WITH SATIN DROP DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2830.7 lumens
Efficiency: N/A
Efficacy: 119.9 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

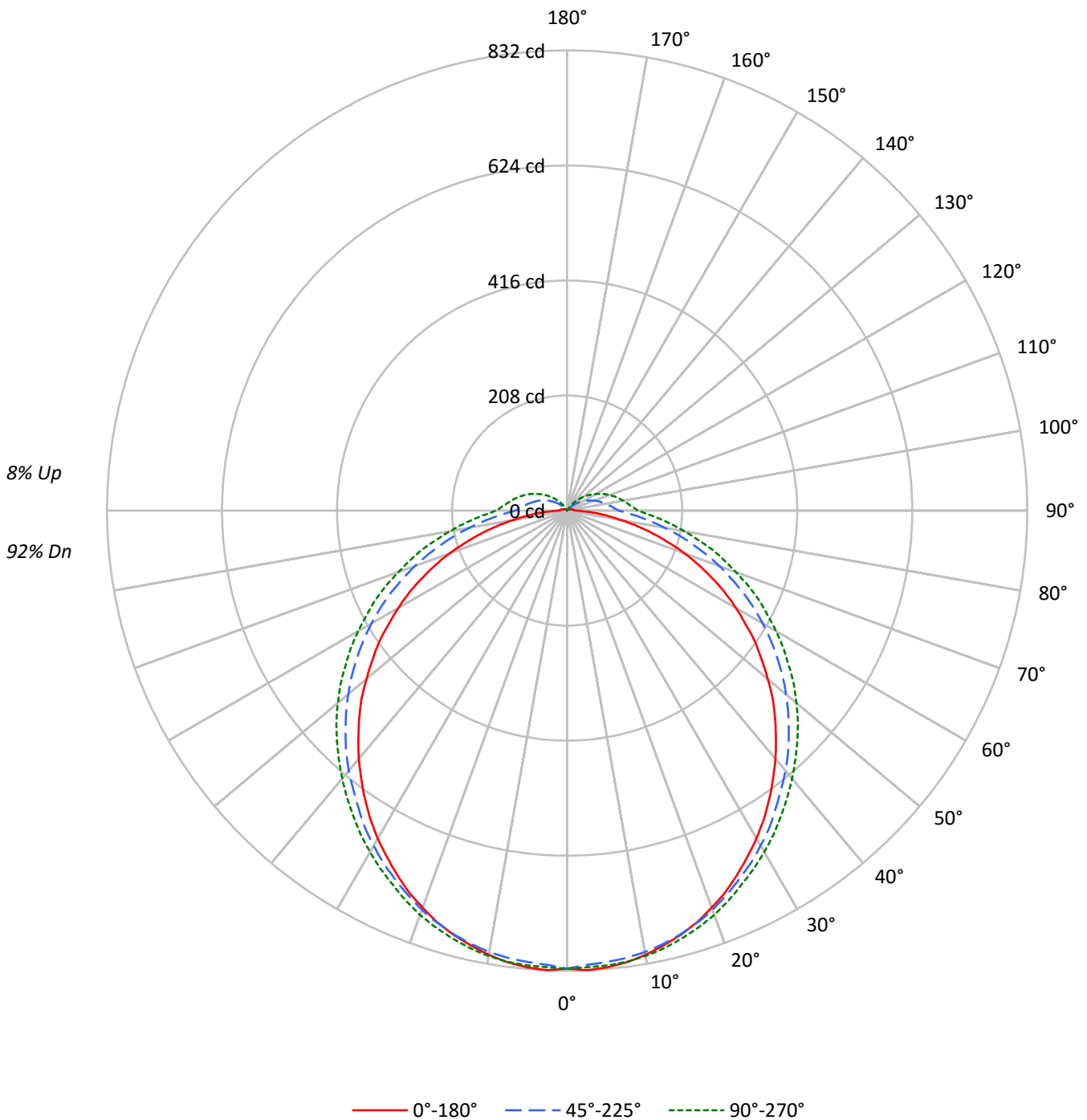
Input Watts (W): 23.6
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	7361	7361	7361
5°	7383	7182	7198
10°	7336	7062	7048
15°	7263	6919	6878
20°	7170	6766	6707
25°	7059	6590	6510
30°	6942	6425	6340
35°	6811	6243	6164
40°	6680	6087	5999
45°	6541	5918	5843
50°	6384	5748	5679
55°	6246	5568	5492
60°	6049	5365	5308
65°	5821	5139	5122
70°	5551	4884	4858
75°	5119	4567	4667
80°	4535	4263	4393
85°	4110	4016	4235



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	78.4	2.8
10°-20°	224.8	7.9
20°-30°	340.3	12.0
30°-40°	412.0	14.6
40°-50°	435.8	15.4
50°-60°	410.6	14.5
60°-70°	341.2	12.1
70°-80°	239.8	8.5
80°-90°	135.1	4.8
90°-100°	80.1	2.8
100°-110°	59.3	2.1
110°-120°	39.6	1.4
120°-130°	22.3	0.8
130°-140°	9.6	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°	643.5	22.7
0°-40°	1055.5	37.3
0°-60°	1901.9	67.2
0°-90°	2617.9	92.5
90°-120°	179.1	6.3
90°-150°	212.8	7.5
90°-180°	213.0	7.5
0°-180°	2830.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	828	828	828	828	828	
5°	829	826	819	826	826	79
15°	794	796	793	802	801	224
25°	727	733	736	746	746	335
35°	637	648	657	672	674	399
45°	532	548	567	584	589	410
55°	415	437	464	484	489	370
65°	290	319	351	373	383	287
75°	161	195	234	260	271	171
85°	50	89	131	159	168	52
90°	15	52	93	119	128	10
95°	12	42	81	106	114	10
105°	9	27	62	84	92	9
115°	6	14	43	63	71	6
125°	4	3	26	43	49	3
135°	2	2	8	23	28	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



TEST NUMBER: P243530

CATALOG NUMBER: S124DR-H795D830-X4F0-XX-UDD-D-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	828.1	828.1	828.1	828.1	828.1
2.5°	831.6	829.0	822.0	827.2	826.4
5°	829.0	825.5	819.3	826.4	825.5
7.5°	823.7	821.1	815.8	823.7	822.8
10°	815.8	814.0	810.5	817.6	817.6
12.5°	805.2	805.2	802.6	810.5	810.5
15°	793.8	795.5	792.9	801.7	800.8
17.5°	780.6	782.3	781.5	790.3	790.3
20°	763.9	766.5	768.3	777.9	777.9
22.5°	747.1	750.7	752.4	763.0	763.0
25°	726.9	733.1	735.7	746.3	746.3
27.5°	705.8	713.7	719.0	728.7	730.4
30°	684.7	693.5	699.6	710.2	712.8
32.5°	661.8	670.6	680.3	690.8	694.3
35°	637.1	647.7	657.4	671.5	674.1
37.5°	611.6	623.9	635.4	650.3	653.9
40°	586.1	601.1	614.3	628.3	632.7
42.5°	558.8	573.8	591.4	606.3	610.7
45°	531.5	548.3	566.7	583.5	588.7
47.5°	504.3	521.9	542.1	559.7	565.9
50°	473.5	492.8	516.6	534.2	541.2
52.5°	443.5	464.7	491.1	508.7	516.6
55°	415.4	437.4	463.8	484.0	489.3
57.5°	382.8	407.5	436.5	458.5	463.8
60°	352.9	377.5	408.3	430.3	436.5
62.5°	322.1	348.5	380.2	402.2	408.3
65°	289.5	318.6	351.1	373.1	382.8
67.5°	257.8	286.9	321.2	345.9	353.8
70°	226.2	256.1	293.1	317.7	323.9
72.5°	192.7	225.3	263.1	288.7	297.5
75°	161.0	195.4	234.1	260.5	271.1
77.5°	130.2	166.3	206.8	234.1	241.1
80°	99.4	139.0	179.5	206.8	215.6
82.5°	74.8	111.8	154.0	183.0	190.1
85°	50.2	88.9	131.1	159.3	168.1
87.5°	29.9	69.5	110.0	136.4	145.2
90°	15.0	51.9	93.3	118.8	127.6
92.5°	13.2	46.6	86.2	111.8	120.6
95°	12.3	42.2	81.0	106.5	113.5
97.5°	11.4	38.7	75.7	100.3	108.2
100°	10.6	34.3	71.3	95.0	103.0
102.5°	9.7	30.8	66.0	89.8	97.7
105°	8.8	27.3	61.6	84.5	92.4
107.5°	7.9	23.8	57.2	79.2	87.1
110°	7.0	20.2	52.8	73.9	81.8



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CATALOG NUMBER: S124DR-H795D830-X4F0-XX-UDD-D-W

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	6.2	17.6	47.5	68.6	76.6
115°	6.2	14.1	43.1	63.4	71.3
117.5°	5.3	10.6	38.7	58.1	65.1
120°	5.3	7.9	34.3	52.8	59.8
122.5°	4.4	5.3	29.9	48.4	54.6
125°	3.5	2.6	25.5	43.1	49.3
127.5°	3.5	2.6	21.1	37.8	44.0
130°	2.6	2.6	16.7	32.6	38.7
132.5°	2.6	1.8	12.3	28.2	33.4
135°	1.8	1.8	7.9	22.9	28.2
137.5°	1.8	0.9	5.3	18.5	23.8
140°	1.8	0.9	1.8	14.1	18.5
142.5°	0.9	0.9	0.0	9.7	13.2
145°	0.9	0.0	0.0	5.3	8.8
147.5°	0.9	0.0	0.0	0.9	4.4
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)