

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: P243462

Luminaire Tested: **S124DR-H1020D830-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P243462
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-84)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S124DR-H1020D830-X4F0-XX-UDD-F-W
Description: DEFINE 4 DIRECT RECESSED WITH SATIN FLUSH 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: 3845.8 lumens
Efficiency: N/A
Efficacy: 122.1 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.3
Luminous Opening: Rectangular (W 0.31' x L: 3.88' x H: 0')
CIE Type: Direct

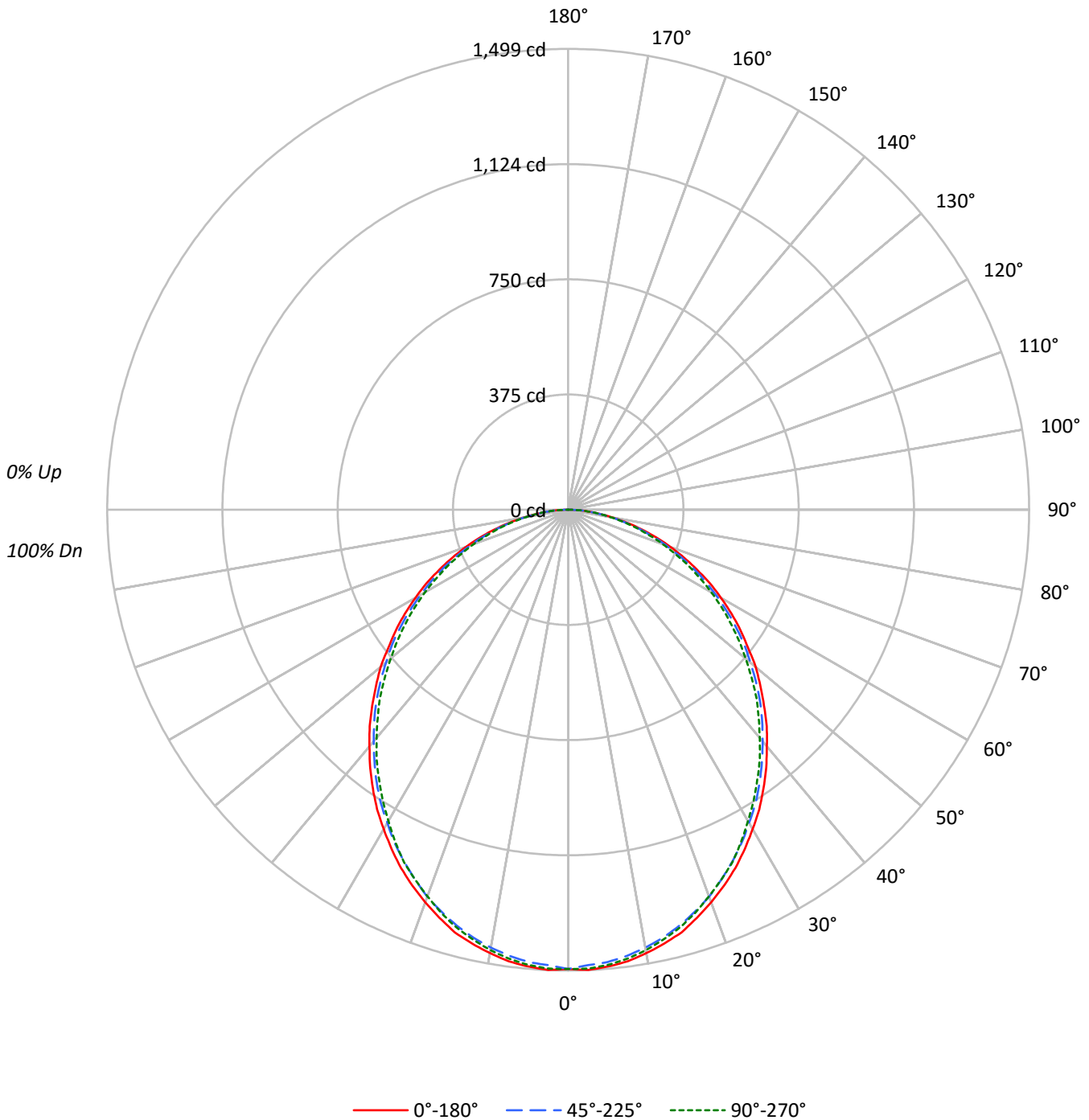
Input Watts (W): 31.5
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84
2	99	91	84	79	97	89	83	78	86	80	76	82	78	74	79	76	73	70
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62	60
4	83	71	63	56	81	70	62	56	67	60	55	65	59	54	63	58	53	51
5	77	64	55	48	74	63	54	48	61	53	48	59	52	47	57	51	47	44
6	71	58	49	42	69	57	48	42	55	47	42	53	46	41	52	46	41	39
7	66	52	44	38	64	51	43	37	50	43	37	48	42	37	47	41	37	35
8	61	48	39	34	60	47	39	33	46	38	33	45	38	33	43	37	33	31
9	57	44	36	30	56	43	36	30	42	35	30	41	35	30	40	34	30	28
10	54	41	33	28	52	40	33	27	39	32	27	38	32	27	37	31	27	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	13279	13279	13279
5°	13308	13178	13265
10°	13220	13056	13133
15°	13099	12886	12942
20°	12855	12671	12659
25°	12613	12386	12399
30°	12314	12077	12002
35°	12016	11779	11634
40°	11664	11411	11242
45°	11323	11094	10880
50°	11010	10691	10421
55°	10605	10323	10002
60°	10199	9854	9552
65°	9715	9383	9076
70°	9192	8782	8499
75°	8476	8140	7889
80°	7469	7341	7156
85°	6568	6568	6446



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	140.9	3.7
10°-20°	397.1	10.3
20°-30°	584.8	15.2
30°-40°	680.4	17.7
40°-50°	680.7	17.7
50°-60°	595.3	15.5
60°-70°	442.1	11.5
70°-80°	251.9	6.6
80°-90°	72.6	1.9
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1122.7	29.2
0°-40°	1803.1	46.9
0°-60°	3079.1	80.1
0°-90°	3845.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3845.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1494	1494	1494	1494	1494	
5°	1492	1489	1477	1488	1487	142
15°	1423	1416	1400	1409	1406	400
25°	1286	1280	1263	1267	1264	592
35°	1107	1098	1086	1076	1072	692
45°	901	897	882	869	866	696
55°	684	680	666	652	645	612
65°	462	458	446	436	432	458
75°	247	242	237	232	230	262
85°	64	63	64	62	63	74
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1493.9	1493.9	1493.9	1493.9	1493.9
2.5°	1498.7	1495.1	1482.9	1495.1	1493.9
5°	1491.5	1489.0	1476.9	1487.8	1486.6
7.5°	1481.7	1476.9	1463.5	1474.4	1473.2
10°	1464.7	1461.1	1446.5	1457.4	1455.0
12.5°	1445.3	1441.6	1425.8	1434.3	1431.9
15°	1423.4	1416.1	1400.3	1408.8	1406.4
17.5°	1391.8	1386.9	1371.1	1378.4	1374.8
20°	1359.0	1352.9	1339.5	1340.7	1338.3
22.5°	1323.7	1317.6	1301.8	1306.7	1301.8
25°	1286.0	1280.0	1262.9	1266.6	1264.2
27.5°	1243.5	1237.4	1221.6	1222.8	1218.0
30°	1199.7	1192.4	1176.6	1175.4	1169.3
32.5°	1156.0	1148.7	1132.9	1128.0	1121.9
35°	1107.3	1097.6	1085.5	1075.7	1072.1
37.5°	1057.5	1052.6	1034.4	1028.3	1023.5
40°	1005.2	1000.4	983.4	974.9	968.8
42.5°	955.4	949.3	933.5	921.4	916.5
45°	900.7	897.1	882.5	869.1	865.5
47.5°	847.2	846.0	827.8	814.4	808.3
50°	796.2	788.9	773.1	760.9	753.6
52.5°	736.6	735.4	722.0	706.2	700.1
55°	684.3	679.5	666.1	651.5	645.4
57.5°	629.6	627.2	610.2	598.0	592.0
60°	573.7	568.9	554.3	543.3	537.3
62.5°	520.2	514.2	500.8	489.9	483.8
65°	461.9	458.3	446.1	436.4	431.5
67.5°	407.2	402.3	390.2	381.7	376.8
70°	353.7	346.4	337.9	330.6	327.0
72.5°	300.2	294.2	286.9	282.0	277.1
75°	246.8	241.9	237.0	232.2	229.7
77.5°	195.7	190.8	188.4	187.2	184.8
80°	145.9	143.4	143.4	142.2	139.8
82.5°	103.3	100.9	100.9	100.9	99.7
85°	64.4	63.2	64.4	62.0	63.2
87.5°	30.4	30.4	31.6	30.4	31.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)