

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: P243481

Luminaire Tested: **S124DR-H1020D935-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P243481
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-H1020D935-X4F0-XX-UDD-F-W
Description: DEFINE 4 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3513.1 lumens
Efficiency: N/A
Efficacy: 111.5 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

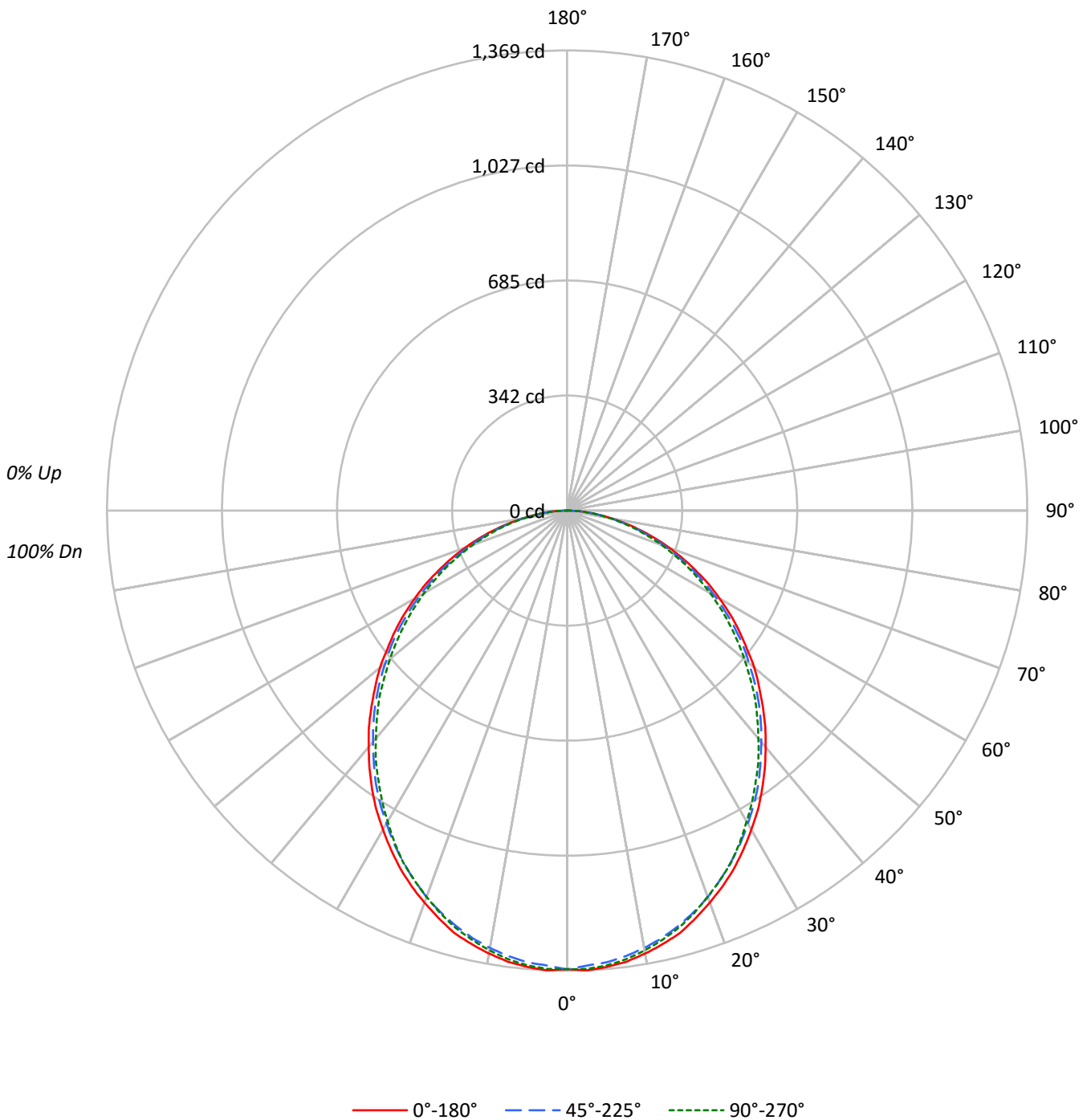
Input Watts (W): 31.5
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	12130	12130	12130
5°	12157	12038	12117
10°	12077	11926	11997
15°	11965	11771	11822
20°	11743	11574	11564
25°	11522	11315	11326
30°	11248	11032	10964
35°	10976	10760	10627
40°	10656	10424	10269
45°	10343	10133	9938
50°	10058	9766	9520
55°	9687	9430	9137
60°	9317	9001	8725
65°	8874	8571	8291
70°	8397	8023	7763
75°	7741	7436	7209
80°	6818	6706	6537
85°	5997	5997	5885



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	128.7	3.7
10°-20°	362.7	10.3
20°-30°	534.2	15.2
30°-40°	621.5	17.7
40°-50°	621.8	17.7
50°-60°	543.8	15.5
60°-70°	403.9	11.5
70°-80°	230.1	6.6
80°-90°	66.3	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°	1025.6	29.2
0°-40°	1647.1	46.9
0°-60°	2812.8	80.1
0°-90°	3513.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3513.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1365	1365	1365	1365	1365	
5°	1362	1360	1349	1359	1358	129
15°	1300	1294	1279	1287	1285	366
25°	1175	1169	1154	1157	1155	541
35°	1012	1003	992	983	979	632
45°	823	820	806	794	791	635
55°	625	621	608	595	590	559
65°	422	419	408	399	394	419
75°	225	221	216	212	210	239
85°	59	58	59	57	58	67
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1364.6	1364.6	1364.6	1364.6	1364.6
2.5°	1369.1	1365.8	1354.7	1365.8	1364.6
5°	1362.4	1360.2	1349.1	1359.1	1358.0
7.5°	1353.5	1349.1	1336.9	1346.9	1345.8
10°	1338.0	1334.7	1321.3	1331.3	1329.1
12.5°	1320.2	1316.9	1302.5	1310.2	1308.0
15°	1300.2	1293.6	1279.1	1286.9	1284.7
17.5°	1271.4	1266.9	1252.5	1259.2	1255.8
20°	1241.4	1235.8	1223.6	1224.7	1222.5
22.5°	1209.2	1203.6	1189.2	1193.6	1189.2
25°	1174.8	1169.2	1153.7	1157.0	1154.8
27.5°	1135.9	1130.4	1115.9	1117.0	1112.6
30°	1095.9	1089.3	1074.8	1073.7	1068.2
32.5°	1056.0	1049.3	1034.9	1030.4	1024.9
35°	1011.5	1002.7	991.6	982.7	979.3
37.5°	966.0	961.6	944.9	939.4	934.9
40°	918.3	913.8	898.3	890.5	885.0
42.5°	872.8	867.2	852.8	841.7	837.2
45°	822.8	819.5	806.1	793.9	790.6
47.5°	773.9	772.8	756.2	743.9	738.4
50°	727.3	720.6	706.2	695.1	688.4
52.5°	672.9	671.8	659.6	645.1	639.6
55°	625.1	620.7	608.5	595.2	589.6
57.5°	575.2	573.0	557.4	546.3	540.8
60°	524.1	519.7	506.3	496.3	490.8
62.5°	475.2	469.7	457.5	447.5	441.9
65°	421.9	418.6	407.5	398.6	394.2
67.5°	372.0	367.5	356.4	348.7	344.2
70°	323.1	316.5	308.7	302.0	298.7
72.5°	274.3	268.7	262.0	257.6	253.2
75°	225.4	221.0	216.5	212.1	209.9
77.5°	178.8	174.3	172.1	171.0	168.8
80°	133.2	131.0	131.0	129.9	127.7
82.5°	94.4	92.2	92.2	92.2	91.1
85°	58.8	57.7	58.8	56.6	57.7
87.5°	27.8	27.8	28.9	27.8	28.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)