

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: P243584

Luminaire Tested: **S124RDR-H1020D935-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P243584
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-65)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S124RDR-H1020D935-X4F0-XX-UDD-F-W
Description: DEFINE 4 REGRESSED 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: 3312.6 lumens
Efficiency: N/A
Efficacy: 105.2 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.1 / 1.25
Luminous Opening: Rectangular (W 0.31' x L: 3.88' x H: 0')
CIE Type: Direct

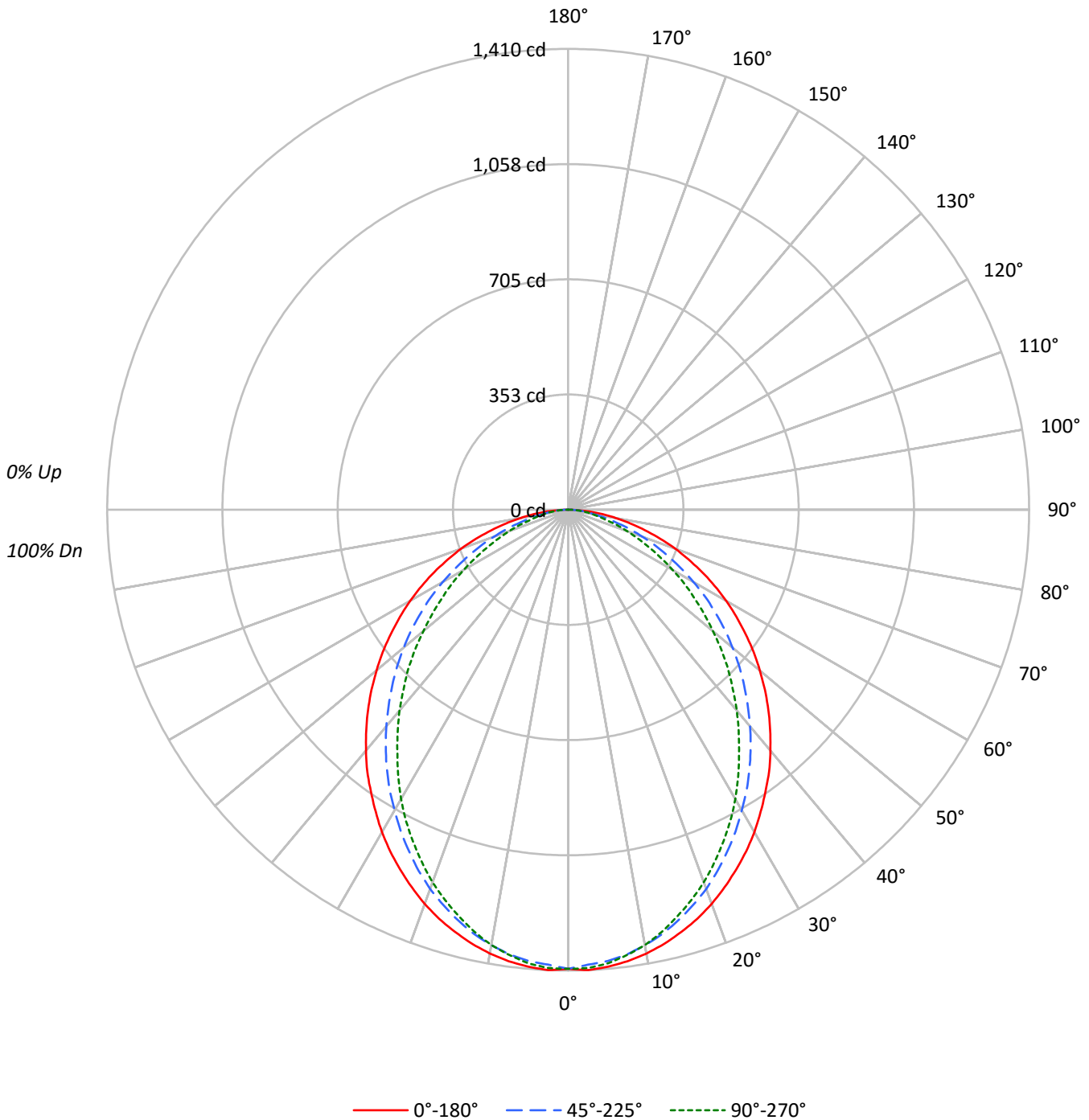
Input Watts (W): 31.5
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	105	101	97	107	103	99	96	98	95	93	95	92	90	91	89	87	85
2	100	92	86	80	97	90	84	79	87	82	78	84	79	76	81	77	74	72
3	92	82	74	68	89	80	73	67	77	71	66	74	69	65	72	67	64	61
4	84	73	64	58	82	71	64	57	69	62	57	67	61	56	64	59	55	53
5	78	65	57	50	76	64	56	50	62	55	49	60	54	49	58	53	48	46
6	72	59	50	44	70	58	50	44	56	49	44	55	48	43	53	47	43	41
7	67	54	45	39	65	53	45	39	51	44	39	50	43	39	49	43	38	36
8	62	49	41	35	61	49	41	35	47	40	35	46	39	35	45	39	34	33
9	58	45	37	32	57	45	37	32	44	37	32	42	36	31	41	36	31	30
10	55	42	34	29	54	41	34	29	40	34	29	39	33	29	39	33	29	27

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	12487	12487	12487
5°	12525	12368	12433
10°	12445	12211	12211
15°	12307	11973	11859
20°	12141	11679	11474
25°	11917	11306	11001
30°	11695	10896	10492
35°	11419	10497	9889
40°	11164	10045	9311
45°	10883	9566	8705
50°	10580	9074	8000
55°	10250	8516	7295
60°	9934	7870	6562
65°	9507	7109	5736
70°	9052	6279	4985
75°	8366	5234	4059
80°	7643	4085	3716
85°	6772	3916	3702



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	132.1	4.0
10°-20°	368.9	11.1
20°-30°	535.0	16.2
30°-40°	609.8	18.4
40°-50°	593.3	17.9
50°-60°	498.4	15.0
60°-70°	347.2	10.5
70°-80°	179.3	5.4
80°-90°	48.5	1.5
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°	1036.1	31.3
0°-40°	1645.9	49.7
0°-60°	2737.6	82.6
0°-90°	3312.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3312.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1405	1405	1405	1405	1405	
5°	1404	1400	1386	1396	1393	133
15°	1337	1327	1301	1299	1289	377
25°	1215	1192	1153	1136	1122	560
35°	1052	1020	967	931	911	659
45°	866	824	761	712	692	668
55°	661	619	550	494	471	592
65°	452	408	338	289	273	447
75°	244	206	152	128	118	259
85°	66	42	38	36	36	76
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1404.8	1404.8	1404.8	1404.8	1404.8
2.5°	1410.0	1405.8	1393.4	1404.8	1403.7
5°	1403.7	1399.6	1386.1	1396.5	1393.4
7.5°	1393.4	1388.2	1372.6	1379.9	1374.7
10°	1378.8	1373.7	1352.9	1358.1	1352.9
12.5°	1360.2	1352.9	1330.1	1331.2	1322.9
15°	1337.4	1327.0	1301.1	1299.0	1288.7
17.5°	1312.5	1299.0	1269.0	1263.8	1252.4
20°	1283.5	1266.9	1234.7	1223.3	1213.0
22.5°	1250.3	1230.6	1195.3	1181.9	1168.4
25°	1215.0	1192.2	1152.8	1136.3	1121.7
27.5°	1178.8	1151.8	1109.3	1088.6	1074.1
30°	1139.4	1108.3	1061.6	1037.8	1022.2
32.5°	1095.8	1064.7	1016.0	987.0	967.3
35°	1052.3	1020.1	967.3	931.0	911.3
37.5°	1009.8	973.5	916.5	879.1	856.3
40°	962.1	923.7	865.7	823.2	802.4
42.5°	914.4	875.0	812.8	768.2	745.4
45°	865.7	824.2	761.0	712.2	692.5
47.5°	815.9	774.4	709.1	658.3	635.5
50°	765.1	723.6	656.2	600.3	578.5
52.5°	715.3	671.8	604.4	547.4	524.6
55°	661.4	618.9	549.5	493.5	470.7
57.5°	609.6	565.0	497.6	440.6	421.9
60°	558.8	514.2	442.7	387.7	369.1
62.5°	504.9	460.3	389.8	336.9	320.3
65°	452.0	408.5	338.0	289.2	272.7
67.5°	398.1	358.7	290.3	243.6	230.2
70°	348.3	303.8	241.6	201.1	191.8
72.5°	295.5	256.1	195.9	162.8	155.5
75°	243.6	206.3	152.4	127.5	118.2
77.5°	195.9	159.7	115.1	94.3	94.3
80°	149.3	117.2	79.8	74.6	72.6
82.5°	105.7	75.7	59.1	54.9	53.9
85°	66.4	42.5	38.4	36.3	36.3
87.5°	32.1	19.7	19.7	18.7	18.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)